SUPERFUND REAUTHORIZATION

HEARING

BEFORE THE

SUBCOMMITTEE ON
COMMERCE, TRADE, AND HAZARDOUS MATERIALS

OF THE

COMMITTEE ON COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

MARCH 16, 1995

Serial No. 104–12

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SUPERFUND REAUTHORIZATION

THURSDAY, MARCH 16, 1995

HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON COMMERCE, TRADE,
AND HAZARDOUS MATERIALS,
Washington, DC.

The subcommittee met, pursuant to notice, at 9 a.m., in room 2123, Rayburn House Office Building, Hon. Michael G. Oxley (chairman) presiding.

Members present: Representatives Oxley, Fields, Upton, Gillmor, Greenwood, Crapo, Bilbray, Whitfield, Ganske, White, Furse, Tauzin, Markey, Manton, Brown, Lincoln, Stupak, Bliley, and Dingell.

Also present: Representatives Moorhead and Pallone.

Staff present: Nandan Kenkeremath, majority counsel, and Richard A. Frandsen, minority counsel.

Mr. OXLEY. The subcommittee will come to order. The Chair would like to recognize Administrator Carol Browner from the Environmental Protection Agency along with Elliot Laws, who runs the Superfund program for the EPA, and announce to the members and everyone here that because of Ms. Browner's schedule we have asked that she lead off and that we waive opening statements until after the first panel so that we may have as much opportunity to question her as possible.

Also, we would hope that at a future date when the schedule isn't as pressing you could come back and be with us for some longer period of time, but the Chair felt it was important because of the desire I think on everyone's part to reauthorize Superfund in 1995 that it would be appropriate to have you as our lead-off witness, and that is exactly what we plan to do, so again welcome to you and we will be pleased to have your testimony and pleased to make any part of that testimony part of the record, and if you could summarize and then we'll get right into questioning. Again, thank you for accommodating us for this very difficult day in your schedule. Thank you.

STATEMENT OF HON. CAROL M. BROWNER, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY ELLIOT P. LAWS, ASSISTANT ADMINISTRATOR, SOLID WASTE AND EMERGENCY RESPONSE

Ms. BROWNER. Thank you, Mr. Chairman, and I appreciate the accommodations that have been extended by you and your staff to deal with the numerous scheduling complications.

Mr. Chairman, we have enjoyed a very positive and bipartisan working relationship with the members of this committee and with yourself and we look forward to continuing that relationship as we all seek to see the Superfund program fixed. We believe, as we said last year, that we need to change the law, that there is a need for major reform and we look forward to working with you to develop a program that will work faster, fairer and more efficiently to protect the health of the American people, to clean up contaminated property, and to return that property to productive community use.

Just very briefly, I think it is important to remember that this was a program created 15 years ago—Love Canal, Valley of the Drums called this country to action. Concerns were significant about these sites and we thought there might be only several hundred. Unfortunately, there turned out to be many more and the technology that had to be developed to clean up these sites took much longer than originally anticipated.

In the 15 years since Superfund was created, we have a lot that we can be proud of. We have been able to remove waste from more than 2,700 sites. Polluters have committed to pay more than $10 billion to clean up contaminated property and Superfund has been a very powerful deterrent in terms of making sure that businesses properly dispose of their hazardous and toxic waste.

But today, 15 years later, 70 million Americans, 1 in 4, still live within 4 miles of a Superfund site. Abandoned, contaminated property still lies idle in the middle of our communities, a blight on our communities, a threat to our health, and a terrible obstacle to economic growth.

The Superfund liability system needs to be reformed to reduce the burden on small business and to ensure that more money goes to clean-up, not to the lawyers. Clean-ups need to be more consistent from one site to another. State and Federal roles overlap too much. Community residents are not involved as they should be in deciding how a site should be cleaned up and what should be done with that site in the future. Exposure to hazardous waste is continuing to cause serious diseases—cancer, respiratory disease, immune system diseases, birth defects, reproductive disorders, and neurological problems.

Since coming to EPA I have been using my administrative powers within the existing law to make changes to the program and I think we have made some progress. In the past year we have been able to complete more Superfund clean-ups than in the first 10 years of the program. We have removed 25,000 sites from the Superfund inventory. Our Brownfields Action Agenda is creating jobs. It's creating hope for communities across the country.

At one site, just one of our Brownfield Action Agenda sites, where no people were employed previously 100 people are employed today and another 100 will be employed in the near-term. But, there is a limit to what I can do administratively. We need to change the law. We believe that we have reached our administrative limits, and that there is nothing more we can do within the existing law. If we are to meet our shared goal of protecting the human, ecological and economic health of our communities, we think that the law should be changed and it should be done so expeditiously.

I would like to mention what we think should be incorporated in a comprehensive reform of the Superfund law. Very briefly, we think, first of all, the law must be designed to protect human health and the environment now and in the future. The law must be designed to protect economic redevelopment, to promote voluntary clean-up efforts, reduce the cost of clean-ups, speed the pace of clean-ups. We must reduce transaction costs, increase fairness. We must expand community involvement and we must enhance the role of States in the cleanup program. Last year we proposed granting States access to the trust fund and delegating the program to qualified States. We would like to work with the committee to expand the role of qualified and willing States.

The final issue I want to briefly address, Mr. Chairman, is the issue of who pays. This is the issue that is the subject of much consideration, of much debate.

There are those who will say that the public rather than the polluter should pay to clean up contaminated lands. This administration continues to believe that the party responsible for the pollution should be responsible for cleaning it up, that the polluters must pay, that the American people, the taxpayers should not be forced to shoulder the burden.

No one disagrees with the need to make the system fairer, to make it more rational. We agree that the Superfund net has been cast far too wide, that people are trapped in the liability scheme who do not belong there and they should be protected. Lenders should be protected. Prospective purchasers should be protected. But we are concerned that if we reject "the polluter pays" principle that it would undermine successful State programs that have grown up over the years, that it would remove the incentive for tens of thousands of voluntary clean-ups that are going on today, and finally that eliminating the "polluter pays" principle would create a competitive advantage for those companies who have delayed undertaking their responsibility to clean up sites.

Again, Mr. Chairman, we look forward to working with you and the other members of this committee to reform Superfund, to protect the health of the people of this country, the health of our communities and the health of our economy. Thank you very much.

[The prepared statement of Carol M. Browner follows:]

PREPARED STATEMENT OF CAROL M. BROWNER, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY

Introduction

Good Morning Mr. Chairman and Members of the Subcommittee. Thank you for inviting me here today on behalf of the Administration to discuss reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act—Superfund.

The Superfund program was created to address a public health problem resulting from hazardous wastes and environmental spills of hazardous substances. I want to particularly address the health aspects of the program today. In addition, I would like to briefly discuss the successful steps we have made in the program, administrative improvements to strengthen the program, as well as ways to build upon these efforts through legislative reform.

The Superfund program has achieved substantial progress in cleaning up hazardous waste sites and protecting human health during its 15 year existence. However, there have been serious proposals for improvement of the statute which we agree need to be addressed. Last year, the Administration worked with a wide array of Superfund stakeholders to develop reform proposals that would fundamentally

change the way Superfund operates to make it faster, fairer and more efficient. The Administration continues to strongly support reauthorization of the Superfund program this year. I am here today to seek this Committee's support. We recognized last year and remain committed to the principle that passage of legislation to reform Superfund or any other environmental program benefits most from bipartisan support. I pledge to you Mr. Chairman and members of the Subcommittee that the Agency is ready and willing to work with all of you to ensure enactment of a program that will meet the challenges we face in striving to protect the health of the people of this country, the health of our communities, and the health of our economy from the environmental risks posed by hazardous waste.

Enactment of CERCLA in 1980

Industrial development over the past century was not without a price. Increasingly, we became aware of the tremendous extent of hazardous waste generation as well as the effects of unregulated hazardous waste disposal. Menacing hazardous waste sites such as Love Canal in Niagara Falls, New York, where more than 22,000 tons of hazardous wastes were buried, and the A.L. Taylor site ("Valley of the Drums") outside of Louisville, Kentucky, where thousands of drums of hazardous waste were dumped, remain, even today, vividly emblazoned on the Nation's consciousness.

The risks posed by contaminated soil and contaminated water resources were ably demonstrated by Love Canal and Valley of the Drums. When these sites were originally identified all too little was known about the overall characteristics of the sites, or about their health significance, or about the availability of cleanup remedies to address them. What was clear was that large numbers of potentially serious hazardous waste problems were not being addressed by the then existing environmental laws. Indeed, even with the enactment of CERCLA in 1980, the magnitude of the problem could not have been imagined. Since that time, not hundreds as initially believed, but thousands of potential hazardous waste sites have been found. Sites have since been found in all types of settings: rural, suburban and urban areas. Few of these sites are truly remote from either homes or farms. With approximately 73 million people living fewer than 4 miles from one or more of the nation's active Superfund sites they present some of the most complex and diverse of all health and environmental pollution problems facing us today.

Protection of Health

EPA has determined that at more than 80% of sites listed on the National Priorities List, under the revised Hazard Ranking System, actual human exposure and/or actual contamination of a sensitive environment has taken place.

Too often, when we appear before committees of the Congress our discussion on implementation of the Superfund program fails to include discussion of important health and environmental effects posed to Americans by hazardous waste sites. Perhaps we do so because of the complexity of the issue as well as the fact that our understanding of the health implications are not fully understood. Data on human exposure and on the toxicity of many pollutants are deficient and, in addition, great uncertainty often is associated with the data that do exist.

Some of the health information we do have comes from the Agency for Toxic Substances and Disease Registry (ATSDR)—our public health partner. ATSDR has conducted public health assessments at more than 1,700 hazardous waste sites using data developed by EPA and from other sources. Like the hazardous waste sites themselves, possible effects on human health and the environment span a broad spectrum. Let me mention some findings that have been made about the impact of Superfund sites on the health of Americans. Findings from these public health assessments, which evaluate health and environmental data, document the exposures of people living around NPL sites.

- At more than 50% of sites where people are known to have been exposed to a contaminant, lead and/or trichloroethylene were identified as hazards. At more than one third of these sites, levels of chromium, benzene, arsenic, tetrachloroethylene, cadmium, toluene, 1,1,1,-trichloroethane, or methylene chloride were also found to be of health concern. All but two of these substances are known carcinogens or are reasonably anticipated to be carcinogens.
- 60% of public health assessments include recommendations to EPA and states to interdict or reduce current, on-going ways in which people are known to have been exposed to contaminants.

ATSDR has further documented exposure to hazardous substances through direct biological measurements. An example is a study of the Mohawk Tribe in New York, women who consumed local fish from polychlorinated biphenyls (PCBs) contaminated waters had significantly higher concentrations of PCBs in their breast milk.

Perhaps the most important question is whether the exposures of people to contaminants from Superfund sites have led to illness. Our understanding of this is incomplete, but a growing body of evidence of instances shows that people living near Superfund sites have shown increased health problems.

Respiratory Illness

- At the Brio NPL site in Friendswood, Texas, a study of 744 participants completed in 1994 showed increased respiratory and skin problems.
- A 1995 study among residents of Forest City and Glover, Missouri, who lived near NPL sites showed an increase in respiratory problems and decreased pulmonary function, especially among non-smoking women.

Cancer and Immune System Function

- Testing of approximately 6,000 persons who live near 10 hazardous waste sites and were potentially exposed to chemicals such as volatile organic compounds shows an increased rate of people having an unusual production of abnormal blood cells that has been associated with chronic lymphocytic leukemia.

Birth Defects and Reproductive Disorders

- A study on Texarkana, Texas, has shown that residents living near an abandoned wood treatment facility had more difficulty becoming pregnant and had fewer pregnancies than a comparison population not living near the site.

Neurologic Illness

- When compared with the expected rates of illness among the U.S. population, registrants from ATSDR's National Exposure Registry who were exposed to trichloroethylene through contaminated drinking water reported higher rates of speech and hearing impairment. Other illnesses reported at higher than expected rates by the registrants included stroke, liver disease, anemia and other blood disorders, diabetes, kidney disease, urinary tract disorders, and skin rashes.

Hazardous Substances Emergency Events

The impact on public health of hazardous substances emergency events also cannot be overlooked. Information reported by 11 state health departments, the following findings from almost 4,000 emergency events in 1993 indicate:

- 12% of all emergency events related to exposure resulted in injuries.
- 4,063 separate injuries (including 16 deaths) were sustained by 2,269 victims. The most frequently reported injuries were respiratory irritation, eye irritation, nausea, and headache. The most frequent victims were responders to the event and employees working at a facility.
- 496 emergency events required evacuation of people living nearby.

These health findings, though compelling still leave many questions unanswered. We do not yet have all the answers to questions about whether or not an individual's health is being affected at any one Superfund site. We have, however, made important strides in learning at which sites people are being exposed, and whether that exposure is likely to lead to illness.

If we are to protect human health and the environment now and into the future, site remediation and other efforts to reduce exposure to waste site contaminants must continue. Continued cleanup progress is essential to secure a safe and healthy environment for our neighbors and for all Americans.

Program Success

The original expectation for Superfund was that the universe of sites needing cleanup would be only a few hundred, and that the program would require relatively modest resources. The original authorization provided $1.6 billion over 5 years. Since 1980, the expectations for Superfund have increased dramatically; over 35,000 potential sites have been screened for federal action. There are 1295 sites proposed and final on the National Priorities List. We estimate that a total of 3,000 could eventually become a federal cleanup priority.

Superfund has had many successes during its 15 year tenure. To date, Superfund has completed construction of all cleanup activity at more than 280 NPL sites, and partial cleanups have been completed at another 489 sites. Additionally, in more than 3200 actions at 2500 different sites across the country, Superfund has led to the emergency removal of hazardous substances that were posing immediate health and safety risks to neighboring communities.

Superfund is premised on one of the most fundamental concepts in environmental protection—the principle that those responsible for creating the pollution should pay for cleanup. As a result of Superfund enforcement actions, responsible private par-

ties under Superfund are performing 75 percent of all cleanups, and they have committed over $10 billion to clean up these sites, reduce threats to public health and the environment, clean up groundwater, and restore sites to productive use. In addition, through Superfund, over 1700 public health assessments have been completed at hazardous waste sites, and significant advances have been made in basic and applied research related to hazardous substances. Superfund has also spurred advances in cleanup technology. In cooperation with industry and other Federal agencies, EPA has identified more than 150 innovative technologies now being used to treat contaminated soil, groundwater, sludge and sediments. These are technologies developed and tested in the United States which are being exported to countries around the world.

Despite these accomplishments, EPA, and others, have identified problems with the current Superfund statute. In fact, I detailed some of those criticisms last year under six broad categories:

- Inconsistent and costly cleanups
- High transaction costs
- Financial burdens and perceived unfairness in the liability scheme
- Impediments to economic redevelopment.
- Overlapping Federal/State relationships
- Inadequate community involvement

To recap some of my points:

1. *Inconsistent and Costly Cleanups:* The law currently does not specify a standard level of cleanup nationwide; instead, it establishes a complex cleanup framework biased toward permanent cleanups and the use of treatment technologies, and applicable and relevant and appropriate state and federal standards often prescribe overly stringent cleanup levels. Consequently, cleanup costs are often high and cleanup goals, remedies, and costs can differ site-by-site across the country.

2. *High Transaction Costs:* Most of the private sector costs not directly associated with cleanup activities are considered "transaction costs." While transaction costs for the government have been relatively low, there is wide-spread agreement that Superfund generates high private-party transaction costs, particularly in private party contribution litigation and in follow-up litigation between those parties and their insurance carriers. These costs can be particularly burdensome to small businesses.

3. *Financial Burdens and Perceived Unfairness in the Liability Scheme:* The current liability regime is also criticized as being burdensome or unfair by many parties. Small businesses and municipalities complain that the liability system can impose significant financial burdens on them. Larger businesses resent having to pay the "orphan share" at sites where other responsible parties cannot pay their fair share. Lenders and trustees fear that they will incur liability if they become involved in Superfund sites.

4. *Impediments to Economic Redevelopment:* Current law extends liability to both past and present owners of contaminated sites. As a result, the market value of older industrial sites can be depressed, because the specter of Superfund liability diminishes the attractiveness of investing in industrial areas. These "brownfields" contribute to job losses and narrow tax bases, and encourage the migration of jobs and capital to undeveloped "greenfields" known to be free of contamination. Prospective owners who want to develop property have an economic incentive to use uncontaminated sites to avoid potential Superfund liability, thereby contributing to suburban sprawl and exacerbating chronic unemployment often found in inner-city industrial areas.

5. *Overlapping Federal/State Relationship:* The federal government has primary responsibility for implementing the Superfund program, and it has exclusive access to the money in the Trust Fund. States, however, play a significant role in the program's implementation. States perform much of the site assessment functions and have taken the lead for managing the design or cleanup at over 75 NPL sites. State standards apply to all cleanups and they have significant input in selecting cleanup remedies. In addition, states must pay a share of any Fund-financed remedial cleanup and states must also pay for all operation and maintenance at fund-financed cleanups. This overlapping authority and responsibility often results in both federal and state agencies overseeing cleanup activity at the same site. This inefficiency and redundancy contributes to the cost and duration of some cleanups, and can result in confusion among stakeholders.

6. *Inadequate Community Involvement:* Many communities near Superfund sites, including low income, minority, and Native American communities, do not feel they are given an adequate opportunity to participate in the Superfund decision-making process. These and other communities believe the program does not address the con-

cerns of those living closest to the hazardous waste site when evaluating risk or determining the method and level of cleanup. Consequently, communities may conclude that the resulting cleanup is overly conservative or insufficiently protective.

Principles for Reform of Superfund

The Administration is committed to improving Superfund. In reaching that goal, however, we are committed to the following principles:

- Cleanups must be faster, fairer and more efficient.
- We must promote economic redevelopment in our communities.
- Less money should go to lawyers and more money should go to cleanups.
- The polluter must pay.

Last year, the Administration, the Congress and other stakeholders addressed an extensive range of issues including proposals to: speed cleanups and cut costs; reduce transaction costs and increase fairness; encourage economic redevelopment; expand state authority; involve communities and encourage advances in science and technology. We received significant bipartisan support for many of these reforms which we expected to significantly reduce cleanup costs and private party transaction costs; stimulate economic redevelopment of contaminated sites in our cities and transfer much of the responsibility and funding for managing cleanups to the states.

Our proposal established national cleanup goals, a national risk protocol, and employed the use of generic remedies to produce quicker, less expensive and more consistent cleanups. It would have streamlined the remedy selection process by requiring the early consideration of reasonable future land use in the decisionmaking process, and eliminating the mandate that cleanups meet relevant and appropriate requirements of other state and federal laws. We also would have narrowed the preference to treat contamination to those areas on a site posing the greatest public health risks.

Other significant reforms would have reduced the burden of the liability scheme and increase fairness. These reforms would have: completely exempted the smallest contributors at Superfund sites and prospective purchasers of contaminated property from liability; guaranteed opportunities for early settlement for *de minimis* parties and parties with ability to pay problems; and, capped the liability of generators and transporters of municipal solid waste, as well as reduced the cost of Superfund to insurance and reinsurance carriers. Finally, the proposal for allocation of responsibility would have eliminated the adverse impact of joint and several liability for parties who cooperate and clean up sites by assuring that they would pay no more than their allocated fair share.

Coming from a state government background as I do, I was particularly supportive of our efforts to enhance the State role in Superfund. Qualified states would have the opportunity to select and perform the full panoply of CERCLA response actions, including oversight of Federal facilities. We proposed to limit the overlap between federal and state governments by providing states with more authority and, therefore, with more autonomy. The proposals also sought to enhance the state's role through the delegation of remedy selection authority.

Superfund sites have the greatest impact at the local level, and communities must be fully involved in decisions which affect their daily lives. Our proposals enhanced the roles of qualified states and also identified ways to foster early, continuous and frequent interaction between communities and Superfund decision makers at all stages of site cleanup. The proposals ensured public meetings at significant stages of the process. Community working groups would identify and recommend future land uses and community agreements would affect the selection of remedy alternatives.

1995 Reforms

I understand from conversations with you and your colleagues that it is your intention to reform Superfund this year and to do so by starting from a "clean slate." I cannot stress too strongly my desire to work with you and other members of Congress over the coming months to ensure that a meaningful reform of Superfund is passed this year. In working with the 104th Congress, I hope that we will preserve the principles of last year's debate. A paramount consideration, in the Administration's view, is the retention of the polluter pays principle. The issue was a focal point of debate last year as I'm sure it will be this year.

The polluter pays principle including retroactive liability is not unfair. It encourages responsible parties to clean up the hazardous waste sites they helped to create, promotes proper waste handling, and furthers the protection of human health and the environment. Problems that have arisen with this approach can be corrected and its benefits preserved without letting the polluters who have not paid off the

hook at the public's expense. Any new proposals for reform should maintain this basic principle.

Since enactment of CERCLA, the Superfund liability scheme has generated considerable criticism. Responsible parties complain about the application of retroactive liability, and the potentially unfair cost burdens of joint and several liability. Few, however, would dispute that the liability scheme has been instrumental in obtaining a large number of cleanups conducted or paid for by responsible parties.

The following example illustrates this point. A fortune 500 company, one of the largest producers of the pesticide DDT, was responsible for DDT contamination at a number of Superfund sites. The company manufactured millions of pounds of DDT at one plant from 1947 until 1982. They disposed of liquid DDT manufacturing waste for over twenty years into an unlined surface impoundment. The company discharged up to 20,000 gallons each day of untreated DDT process waste into the public sewer system. The company was responsible for contaminating water and soil—not only within the boundaries of the plant but in surrounding residents' backyards and in the community's water. More than 100 residents had to be relocated. EPA is continuing to investigate the area and has identified four other residential parcels that may contain unsafe levels of DDT. While EPA completes its response action, the relocated remain in temporary living quarters or hotels. In addition, the 100 metric tons deposited in the marine sediments were so high it prevented the bald eagles and peregrine falcons in the area from reproducing. I am concerned that low income communities in this area may still be regularly consuming DDT-contaminated fish. Were retroactive liability to be abolished, companies like the one described could simply walk away from the problems they created and pass the cost of cleanup on to the American taxpayer.

The Superfund liability scheme has been instrumental in changing the way that corporate America looks at hazardous waste disposal. Because of the costly consequences of irresponsible waste disposal practices, companies are minimizing waste more and disposing less. When hazardous waste disposals are necessary, now they are being done in a more responsible manner. And, most importantly, responsible parties have committed over $10 billion for cleanups since 1980.

As the statute currently provides, cleanups are funded from three basic sources: the Trust Fund, created from a combination of petroleum and chemical feedstock excise taxes and the Corporate Environmental Income Tax; other Federal agency appropriations for federal facility sites; and directly from potential responsible parties. The American taxpayer is already paying for the amount generated by the Trust Fund as these costs are easily passed on to each and every one of us. We are also paying for federal facility cleanups. I cannot understand how a fairer scheme would have the taxpayer pick up the rest of the cost of cleaning up these hazardous waste sites while those responsible for creating the problem in the first place simply turn their backs on the problem.

Another important aspect of fairness is its application to those companies that have acted responsibly to cleanup waste sites. The elimination of retroactive liability could be viewed as providing an economic windfall and competitive advantage to the recalcitrant competitor. While responsible companies have committed over $10 billion for Superfund cleanups their recalcitrant competitors stand to profit enormously should such a change succeed. Is that the message we want to send? We will be punishing the "good" guys who have played by the rules.

Fairness aside, eliminating retroactive liability creates other problems. It erodes the foundation upon which states are able to cleanup the tens of thousands of contaminated properties under their jurisdiction. Consider that over 30 states agree with this principle and have adopted liability schemes similar to the federal Superfund statute. If repeal of retroactive liability is successful on the Federal level, state cleanup programs will be severely undermined. In addition, not unlike the federal Superfund program, over 75% of all state managed cleanups are conducted by private industry under the rubric of the federal Superfund law or under state liability laws. At a time when States are being looked to for the assumption of and responsibility for more program management, their authority could be undermined. When we take into consideration the additional revenue required to convert the business of site cleanup to a public works program, the scope of state program involvement becomes daunting. In each of the last three years, potential responsible parties have committed over $1 billion dollars toward cleanup at EPA-managed sites alone. The commitment of private parties to cleanup of state-managed hazardous waste sites is at least 2-3 times that amount.

Finally, elimination of retroactive liability could have disastrous consequences for the economic redevelopment of brownfields, which I will discuss in more detail later in my statement. In many of our cities, brownfield redevelopment is contingent upon the tens of thousands of privately funded cleanups now conducted on a voluntary

basis to avoid Superfund liability. The incentives for good waste handling that derive from the current liability scheme encourage these voluntary cleanups and further free up contaminated properties for reuse and revitalization of communities.

I believe it is fairer to require those who caused or were associated with site contamination and profited over the years to pay for cleanup than it is for the American taxpayer to shoulder that burden.

Administrative Reforms

While awaiting Congressional action to reform and reauthorize Superfund, the Agency has moved ahead with administrative reforms to make the cleanup program faster, fairer and more efficient. Over the last two years EPA has put in place a series of administrative improvements. I am particularly pleased to report on the progress the Agency is making in this regard. Significant steps have been taken to address key areas of concern and to build upon and continue the Administrative Improvements Initiatives launched in 1993. These efforts were designed to strengthen the program by improving the pace of cleanups, lowering the costs of cleanups, reducing the burdens, and increasing the fairness of the program for all involved. In addition, these initiatives also seek to improve and expand the opportunities for public involvement and participation.

We believe that many of these initiatives are already providing measurable benefits to Superfund stakeholders, to public health and to the environment. We anticipate that these investments in long-term performance improvement will produce significant resource savings, more cleanups, and more effective public participation.

A final closeout report of the Superfund Administrative Task Force was released this January. Since then, the Agency has moved forward with administrative reforms for 1995 and 1996. Six areas of reform focus on enforcement, economic redevelopment, community involvement and outreach, environmental justice, consistent program implementation and state empowerment.

Let me briefly describe some of these efforts:

- *Enforcement reforms.* There is a three-part effort underway to reduce liability burdens by promoting fair allocations of responsibility and early settlements. First, EPA will accelerate and enhance the quality of PRP searches, and make liability information more accessible to the public. Second, the Agency will also identify and offer more early expedited settlements to de minimis and paries with an ability to pay problem. Third, EPA will, for the first time, use a non-binding process for allocating response cost responsibility at selected sites to "test" drive the allocation proposal made last year.
- *Economic Redevelopment reforms.* Superfund currently extends liability to both past and current owners of contaminated sites. As a result the market value of older industrial sites can be depressed because the prospect of liability diminishes the attractiveness of investing in industrial areas (called "brownfields").

  The Brownfields Initiative.—In late January of this year, I announced the "Brownfields Initiative". This initiative represents the Agency's efforts to encourage the safe and sustainable reuse of idled and underused industrial and commercial facilities. Major steps to make it easier to develop contaminated sites in inner city industrial areas are described. The Agency will fund 50 brownfield redevelopment pilot projects by the end of 1996 that will develop strategies for revitalizing local brownfield sites. This will give us, and others, an opportunity to observe which approaches are best suited for different types of communities. With this money, cities can bring together the people who live near contaminated properties, businesses that want to get the land cleaned-up, community leaders, investors, lenders and developers to help remove the barriers to property transfer and revitalization. Our first pilot in Cleveland, Ohio, has already leveraged $1.7 million in private investment, obtained a quarter of a million dollars in private donations, created 100 jobs with another 100 jobs expected within one year, and generated over $600,000 in new tax revenue for the city.

In addition, as part of the Brownfields Action Agenda, we are removing almost 25,000 sites from CERCLIS - the Superfund site data base. These 25,000 sites represent those that states and EPA had already screened and found to be of no further federal interest. They were assigned a designation of "No Further Remedial Action Planned (NFRAP)." Thousands of these sites have been found not to be contaminated at all, while others are being cleaned up under State programs. The mere fact that these sites have remained in CERCLIS has caused potential developers to shy away from them and many lending and real estate investment communities have denied loans for businesses in or near CERCLIS sites as a matter of policy. These changes are designed to help resolve one of the unintended consequences of

Superfund. Owners and prospective purchasers can know which sites are no longer of Federal interest, and thus can work with their states to clean them up without having to worry about additional Federal cleanup liability.

Other elements of the Agenda call for building strong and effective state and local cleanup programs which will prevent the need for Federal involvement in many sites with economic development potential.

Finally, EPA is identifying options and developing guidance to reassure lenders and prospective purchasers of the safety of their investments, and to thereby encourage the cleanup and redevelopment of contaminated properties. Guidance about CERCLA lender liability is due out this summer, along with revised guidance for issuing prospective purchaser agreements, and reassurance to owners of property located over contaminated aquifers. The Agency also is putting together clarification regarding the liability of municipalities which acquire property involuntarily through tax foreclosure, etc.

- *Community Involvement and Outreach reforms.* The Agency will be issuing guidance that will focus on the early involvement of communities at sites and further improve the technical assistance grant program to provide earlier distribution of funds and the opportunity to fund necessary training.
- *Environmental Justice reforms.* A pilot program has been instituted with the Department of Health and Human Services to enhance communities' access to appropriate health services in instances where contact with hazardous substances has occurred. Last summer, EPA requested assistance from the Public Health Service to respond to health concerns of communities living near hazardous waste sites by improving delivery of medical services. The Superfund Medical Assistance Work Group was established and a plan developed. The pilot program will assess health care needs and concerns of communities and, among other things, evaluate the effectiveness of such services as technical assistance to local agencies, environmental health education for health care providers, medical testing for residents and medical referral of persons with documented exposures to hazardous substances or with adverse health conditions related to possible exposures. Currently EPA is working on this project with the Agency for Toxic Substances and Disease Registry (ATSDR) and other components of the Public Health Service.
- *Consistent Program Implementation.* Two efforts are underway that will provide guidance for remedy selection and explore programs to share risks associated with implementing innovative technologies.

In order to improve consistency and to take advantage of streamlining opportunities in site characterization and remedy selection in the program three initiatives will be completed. The soil screening guidance will help identify portions of contaminated sites that do not require further attention. This screening tool will, we believe, expedite and streamline the investigation of NPL sites. A second action will be the completion of a land use directive which will focus the development of remedial alternatives on those that will be consistent with reasonably expected future land uses at sites. The guidance will indicate the kinds of information that are needed to make assumptions about land use and how an assumption about land use can be used in the development of remedial alternatives. The Agency is also continuing the development of presumptive remedies—standardized remedies for certain types of sites—that are based on scientific and engineering analyses performed at similar Superfund sites. Presumptive remedies encourage streamlined investigation and study of sites and are designed to achieve quicker cleanups.

The second major effort underway to improve consistency is the initiative to encourage PRPs to assume a more active role in technology development. For a limited number of approved projects, EPA will agree to share in the risk of testing innovative technologies. If the innovative remedy fails to perform as expected/required, EPA would contribute up to 50% of the cost of the failed remedy if additional remedial action is required, up to a specified maximum amount. This approach will also be considered for innovative technologies included in pilot studies to demonstrate procurement with performance specifications.

- *State Empowerment.* Nationwide there are more hazardous waste sites than EPA alone could address. Many states have developed sophisticated and experienced cleanup programs and have already cleaned up large numbers of sites under their own laws. To further encourage states, territories and federally recognized indian tribes to address contamination and oversee potentially responsible party cleanup actions at sites that are not on the NPL the Agency is undertaking three initiatives to increase state empowerment. The first would issue guidance to promote effective state voluntary cleanup programs and, in conjunction with the Agency's Brownfields Initiative, authorizes limited financial assistance to

such programs. The second provides for an integrated federal/state site management program that will allow deferral of potential NPL sites to qualified state cleanup programs. The third addresses various state funding options. Under current regulations and policies, EPA may enter into several types of site- and non-site-specific cooperative agreements. To provide administrative relief from some of the cumbersome and time-consuming current program measures, the Agency will work with states to identify options and opportunities to consolidate the Superfund award process through bloc grant funding.

Conclusion

Since my arrival at the Environmental Protection Agency more than two years ago, I have endeavored to commit the Agency to a future course that builds on the strengths of the last twenty-five years and seeks to overcome identified deficiencies and weaknesses. I am all too aware that the American people are not served if we fail to recognize their strong belief that environmental quality is an essential component of their long-term health and economic prosperity.

Our experience implementing CERCLA suggests that the nation responds to environmental problems with energy, creativity and a deep-seated sense of responsibility for future generations. People want a clean environment as well as the confidence that legislative efforts will solve their concerns. Our efforts must be viewed as working toward a solution and not walking away from the problem. The reauthorization and reform of Superfund this year provides us with the opportunity to continue in a truly cooperative and consensus-building fashion that leads to reform of a vital and important environmental program. Perhaps the challenges are greater this year but wide divergence of opinion and extensive policy debate does not preclude the achievement of consensus. The reforms the Agency introduced administratively and the principles it supports legislatively are designed to achieve a common goal. They are all designed to allow the Superfund program to achieve its fullest potential, to make the program faster and fairer, and to achieve better cleanups. They are dedicated to the protection of human health and the environment.

The Administration is committed, and I am personally committed, to working with this subcommittee and other members of Congress to ensure that meaningful reforms are made this year.

Mr. Chairman, I thank you for this opportunity to address this subcommittee, and I will be glad to answer any questions that you might have.

Mr. OXLEY. Thank you, Administrator Browner, and I have a question or series of questions. The staff has prepared a chart based on a 1991 study from the University of Tennessee. The Congressional Budget Office prepared the study of 1994 which seemed to confirm that the best estimate of the cost of the Superfund program in undiscounted dollars is over $150 billion over the next 30 years.

In fact, the CBO study suggests that the cost would be about $228 billion. The CBO study notes that if you scale up the number of NPL sites which form the basis of the Tennessee study to the 4,500 which the CBO predicts the Tennessee study would predict a cost of $226 billion.

Could we get that a little closer to——

Ms. BROWNER. We actually just got handed a copy. Thank you.

Mr. OXLEY. Okay, thanks. Suffice it to say that these are enormous costs. Moreover, as indicated in the lower chart, when you add up the predicted cost of all the Federal clean-up programs the cost is over $700 billion.

What concerns me is whether this incredibly large national expenditure is really worth it.

You will also notice that the chart shows an almost $700 billion difference between an approach which focuses on stabilizing and containing the waste and an approach which requires full restoration of the land and water.

My first question is do you believe the goal of Superfund should be protection of human health from reasonably probable and sig-

nificant risks or that the law should require full restoration of land and ground water in all cases where it is technically feasible regardless of the cost or the reasonably foreseeable use of land or groundwater?

Ms. BROWNER. Mr. Chairman, the concern I have with the suggestion that your question raises is a "one-size-fits-all" approach to the problem. What we don't need is another "one-size-fits-all" overly prescriptive system.

There are some instances where containment is absolutely appropriate. Land fills are an example. Many land fills in this country are today Superfund sites. They will be contained. That is a proper decision for that site.

You have other sites where containment looks attractive but when you think about it out over a 5, 10, or 15 year period and the negative effect it could have on economic development, containment is not as attractive. What we need is a law that is dynamic, that is flexible so on a site-by-site basis with community and local government, State involvement, we can make the right decision for that site together with the people who will live with that decision.

Mr. OXLEY. And that is taking into account the foreseeable use, the land use and the like?

Ms. BROWNER. Yes. Absolutely. The clean-up plans have to take into account what is going to happen at the site. If it is going to be an industrial site, you have one kind of clean-up plan. If it going to be a nursery where young children will be playing outside, you need another kind of clean-up plan. You have to take into account future land use.

Mr. OXLEY. Essentially today we don't have that flexibility and of course that is one of the major issues we are going to have to come to grips with, is that correct?

Ms. BROWNER. Well, Mr. Chairman, I think as you remember from last year, we supported inclusion of future land use in development of clean-up plans.

We do the best we can within the existing law. We think a change in the law would clarify and streamline our ability to take into account future land use.

Mr. OXLEY. What about the groundwater issue and how that relates to what your position is?

Ms. BROWNER. Fifty percent of the American people depend on groundwater for the water they drink. There will be some instances where the technology is not currently available to do the clean-up. There will be some instances where containment may be appropriate but there will be other instances where that is a drinking water supply or a future drinking water supply for a community and you want to make sure that the law is flexible so that we can ensure if a community wants to grow, if a city is going to grow in a particular direction and will be looking to a groundwater aquifer for their drinking water supply, that we will be cleaning that site.

We shouldn't be passing these problems on to future generations. We have a responsibility to deal with the problems we have created and to make sure that we can make the most sensible decisions on a site-by-site basis.

Mr. OXLEY. Well, I noticed that in your written statement and it's also in your statement to the other body that you recognize that

there are some needs for providing some flexibility and so forth, and we also hopefully can learn from our mistakes.

As you know, our former colleague, Jim Florio, who became Governor of New Jersey, had a little bit of a different outlook as far as clean-ups were concerned when he became Governor and was quoted as saying it doesn't make sense to clean up a rail yard in downtown Newark so that it can be a drinking water reservoir.

Indeed, I think that is our challenge, but it is also a huge opportunity to get enough flexibility into the statute——

Ms. BROWNER. Right.

Mr. OXLEY. [continuing] to let you and the State officials do your job in terms of those kinds of clean-ups and that is really what we want to try to do.

I now recognize the gentleman from the Upper Peninsula.

Mr. STUPAK. Thank you, Mr. Chairman.

Welcome to the hearing today and I enjoyed your testimony.

I think the things that you highlight and the need for flexibility is probably what we all want to see in a Superfund law and how it is applied in the field.

Unfortunately, when you speak of protecting human health, the environment, the speed of clean-up, the transaction cost—to limit those and the money goes for clean-up and not into the hands of the lawyers or community involvement—that's all fantastic goals but if you take Manistique, that is really not what is happening.

I know you are familiar with the Manistique Harbor situation. The whole county is only 10,000 people; 4,300 people have signed petitions saying let's cap this. You have State officials saying we should cap Manistique Harbor. You have local officials saying cap Manistique Harbor. You have two willing parties who happen to be here today who have all said let's do this as quickly as possible—we are on the accelerated site and here we are stuck because we have this unrealistic goals and objectives now being pushed forth that they want to dredge, and it's in such a manner that even though we say these things and the flexibility that we all want to see, it's just not being applied out in the field.

How do we come to grips with that? We can write all the laws we want but if there's no follow-through at the field level, it doesn't do us any good.

How do we remedy that?

Ms. BROWNER. Well, I think the first thing we have to do is change the law. We have to fix the law so that the tools are available to the people in the field to make the common sense cost effective decisions that we want to be making.

With respect to the site that you raise, we want to work with you to ensure that the very best decision is made. We have undertaken a fairly unique study, in part based on your request to look at what is the best remedy selection for that site and we are hopeful that we will have the results of that study in the not-too-distant future so that we can inform all of the people involved in the site, from the people out in the field to ourselves, and move forward with a wise decision.

Mr. STUPAK. The chairman had mentioned the cost of clean-ups and that, and when I take a look at the Great Lakes region where I'm from the EPA Great Lakes sources said that the best way to

remove PCB's, or at least that's the remedy they seem to be advocating, is dredging, and if we were to dredge the PCB's from the Great Lakes, from the different sites around the Great Lakes, it will cost us about $15 billion.

How do we go about paying for $15 billion worth of dredging just in the Great Lakes alone?

Ms. BROWNER. One of the very difficult issues we deal with, and it's not just in the Great Lakes but across the country, is the issue of PCB contamination. It is a very unfortunate situation in far too many places.

We are constantly looking at how to reduce the cost of PCB clean-ups. I think we have made some progress in terms of finding more cost effective ways to do it.

In terms of the Great Lakes, I think that it is important to note that the health of the Great Lakes is improving. Unfortunately, in other ways it is not. We find that the toxic contamination, the biocumulative toxics continue to rise.

Earlier this week we announced a set of standards that we will be working with States to implement around the Great Lakes to achieve the kind of reduction in toxic chemicals that we need to protect the Great Lakes and its resources.

Mr. STUPAK. That's talking about the Great Lakes initiative, is that——

Ms. BROWNER. The Water Quality Initiative, right.

Mr. STUPAK. Okay. Let's get back to dredging a little bit. If we continue to dredge and if you take the Army Corps right now, they are performing dredging on about 60 of 114 harbors that are in the Great Lakes.

They would like to do more but they are paralyzed because there are no site disposal facilities. I mean even if we dredge Manistique, where they are going to have to build a site disposal place or somehow ship it somewhere, if we are only doing 60 of 114, we are doing about half of them.

That's what the Army Corps estimates are. So how would then Manistique be any different in trying to find disposal sites? I mean not only is the cost of dredging but then you have to dispose of it and we are paralyzed by other parts of the whole equation, so when we start looking at dredging we've got to look at the whole picture.

Mr. OXLEY. Can we have a quick answer? We have to stay close to the 5 minute rule.

Ms. BROWNER. We are obviously looking at the disposal sites. I think a lot of the dredging you are referring to is in navigation channels and you look at different disposal sites for those than for contaminated soils.

Obviously this is something that we need to work on with the Great Lakes States.

Mr. OXLEY. The gentleman's time has expired.

Mr. STUPAK. Mr. Chairman, I have some other questions I will submit to the Administrator in writing.

Mr. OXLEY. Without objection.

Mr. STUPAK. Thank you.

Mr. OXLEY. Thank you. The gentleman from Idaho.

Mr. CRAPO. Thank you, Mr. Chairman and Administrator Browner.

If you'll recall, the last time you were here—well, in my first term here 2 years ago——

Ms. BROWNER. Right.

Mr. CRAPO. [continuing] we talked about the Three City Lead Study. At that time I think, if I recall the answer you gave, you were still evaluating that, that the Agency was still trying to determine what was going to be its response to and handling of that study.

I am concerned that according to an October 1992 fact sheet that we talked about then that the EPA study has found no evidence to show that soil abatement reduced lead levels in children in two of the cities studied and in the third city the reduction was very minor.

It seems to me that we have got a $15 million study that was initiated in 1987. It is now 8 years later and yet the EPA has not finalized the integrated technical Three City Lead Study report.

I guess my question is, is this report finalized?

Ms. BROWNER. If I might ask Mr. Laws to respond to that, I think he is more familiar with the study.

Mr. LAWS. Mr. Crapo, I don't believe the study has been finalized. I think there were some questions raised as to the methodology that was used and there are some internal discussions going on within the Agency regarding it.

Mr. CRAPO. I guess one of my concerns about that is that is basically the same answer I got 2 years ago and it is now 8 years from when the study was conducted. Frankly, it seems to me that what we have got is some data that the Agency apparently doesn't like, that it doesn't want to finalize and put into final report status and I am also advised that this is the basis upon which some of the standards we are living under are being used.

I guess to me we need to have the study and the information in that study out and I am wondering when we are going to get it.

Ms. BROWNER. If it is acceptable to you, Mr. Chairman, and Mr. Crapo, to give you an answer with a date in writing.

There is no effort on the part of the Agency to keep information secret. We want to make all of the information that we have about these very difficult issues publicly available.

The issue of lead contamination in soils is a very real issue for children in this country, and unfortunately we continue to see children who experience permanent, life-long damage. They cannot function in the way that we would like to see children function in our society. They cannot grow up to be working members of our society because of lead poisoning and it can occur from contaminated soils. This is a very real problem and this is something I think each and every one of us wants to prevent.

It is absolutely preventable.

Mr. CRAPO. Well, I understand that and I guess one of my big concerns is that as we address the lead issue—I've got as you know a couple of those issues, at least one very clear issue in my district where we were able to study the blood levels in every resident of the area, and find that in fact the same kinds of information that the Three Cities Study would have indicated would be true.

One of the concerns I have is that as I understand the standards that the Agency is now operating under, the standard for areas

where children are located like playgrounds and so forth is 5,000 parts per million and yet we have other standards that down to 400 parts per million for other sites.

We have got to get a handle on this because the cost is something that also hurts children in this country as we drain the vitality of our economy through these kinds of standards.

Ms. BROWNER. For the standard that we set, first of all there is a screening level and then we look on a site-specific basis at what the cleanup should be. With this issue of contaminated soils and children, I think it's helpful to understand exactly what we are doing here because we don't find lead in people today doesn't mean we won't find it tomorrow, and we don't want to wait to act until the children are already experiencing IQ point loss. That shouldn't be what environmental protection is about. It should be about preventing the problem rather than waiting for the problem to occur and then seeing if you can resolve it.

For soil, what we are talking about when it comes to children is a relatively small amount which any child who plays outside is in danger of incidentally ingesting. I mean it is a fact of life. Children put their hands in the soil. They put their hands in their mouth. They put their toys in their mouth and the amount of soil we are talking about is literally that much [indicating a handful]. That is what we are worried about, not buckets full. We are worried about a child putting this amount of dirt in their mouth. It is a very real fact of life that children will do that in the course of the day.

Mr. CRAPO. And yet you don't have a study that shows that that lead in that soil is bio available?

Ms. BROWNER. No, we know that children who ingest that soil will in fact experience damage.

Mr. OXLEY. The gentleman's time has expired. The gentleman from Michigan, the ranking member of the full committee.

Mr. DINGELL. Thank you, Mr. Chairman. I commend you for holding this hearing today. Welcome, Ms. Browner.

Ms. Browner, I have 3 questions I would like to direct to you. First, you recall the consensus based Superfund Reform Bill, which was reported from this committee last year but which did not pass the House or the Senate.

The three questions are: (1) How does it address the criticisms of excessive transaction costs in the liability system; (2) How does it achieve cost savings and the remedy selection area; and (3) How does it encourage development of Brownfield sites?

Ms. BROWNER. The consensus package that was developed last year—let me take each of the points separately.

In the case of transaction costs, there are two types of transaction costs that we sought to resolve in last year's bill. That is the litigation that occurs between parties over who owes what, and this committee worked and developed what was referred to as a neutral allocator system for determining each party's fair share. Let's get everyone to the table. Let's figure out who owes what in a non-judicial setting. Let's get the lawyers out of the room and let's make sure that people are paying their fair share.

We also worked with the committee to make sure that the home owner doesn't find himself caught in the net, that a small business is dealt with fairly and efficiently, that banks don't have a liability,

that prospective purchasers don't find themselves with a liability. So the transaction costs were significantly reduced, would have been significantly reduced with the creation of an allocation system that was fairer and more efficient.

In the case of economic redevelopment, protected banks so that they will lend on contaminated sites and protected the prospective purchasers so they could go in and buy a contaminated site. With these reforms you would see literally thousands of sites that are now idle across this country revitalized. You would see communities given back hope because the site would be cleaned up. Jobs would be brought back. The community could flourish once again.

Mr. DINGELL. And the site cleanup, in referring to the Brownfield matter, could be done in a fashion that would suit it for industrial development——

Ms. BROWNER. Right.

Mr. DINGELL. [continuing] to increase the tax base of that community or restore it instead of going out and tearing up a perfectly good piece of open space somewhere out in the country for construction on a similar site which we could again commence with the pollution of.

Ms. BROWNER. Right.

Mr. DINGELL. Now we talked about everything except the question of achieving cost savings in the remedy selection area. How would that be addressed?

Ms. BROWNER. By looking at several issues. First of all, in the consensus package of last year the remedy selective provisions narrowed treatment to hot spots. It also took into account the reasonableness of costs and would have required the explicit consideration of future land use.

Again, if you are able to look at what is going to happen on that site, you can make adjustments to the clean-up plan and that can result in real cost savings. On-the-ground activities would have been fundamentally different based on the future land use.

The bill also eliminated the mandate for permanent remedies and it provided for interim containment if appropriate treatment technology was not yet available.

Mr. DINGELL. Now Ms. Browner, the second panel today will contain several witnesses. They are going to testify about some very important matters and they are going to refer specifically to site problems they have encountered with different EPA regions.

My reference is to Ms. Donna Rose of Ketchum, Idaho, Mr. Newton of Olin Corporation with regard to a site in Virginia, and Mr. Herstad from Duluth, Minnesota.

Can you respond to the concerns of these witnesses as raised in their prepared testimony?

Ms. BROWNER. As I understand the issues that will be raised in that panel, it is my sense that the package that we all worked to advance last year would have addressed the problems that you will hear today.

In the case of Mr. Herstad, his complaint as I understand it is that he had to hire an attorney. He was not a PRP. He did not have liability but he ended up having to hire an attorney.

Under last year's bill, his attorney's fees would have been covered. He wouldn't have had to pay out of pocket.

In the case of the site that Donna Rose represents, the Triumph Mine site, we have been able to work with the State in that instance to defer the site to the State so that they can take responsibility. Under the proposal last year, there would have been a clear and easy way for States to be the lead at the site. What we want to do is to say who is in charge here, the Federal Government or the State, okay? The other party should get out of the way. The bill would have helped us to do that in a more expeditious streamlined manner.

Finally, in the case of Mr. Newton, at the site in Virginia, we are in the process of working with the community there to understand exactly what is best for that community. Again, last year's bill would have streamlined processes and allowed us to do that more expeditiously. It would allow us to bring in the community on the front end to make sure they are a part of the process from the beginning.

Mr. OXLEY. The gentleman's time has expired.

[The prepared statement and attachment of Hon. John D. Dingell follow:]

PREPARED STATEMENT OF HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Thank you, Mr. Chairman. I welcome this first of a series of hearings on reform and reauthorization of the Superfund program. More than one-third of the Members of this Committee are new to the Congress or the Committee, and these hearings will educate all of us on Superfund's progress and its problems.

In the last Congress, this Committee identified, proposed and passed a major overhaul of Superfund. Two particular problems we tried to address were excessive transition costs, and high costs in selecting remedies.

The tasks of allocating the costs of cleanups among responsible parties, negotiating with EPA over a corporation's responsibility for a site, and pursuing or defending third party contribution actions have been identified by the General Accounting Office as principal sources of excessive transaction costs. To break the cycle of litigation, we looked at using a mandatory allocation scheme, overseen by a neutral allocator, to assess "fair shares" at sites where several parties may bear responsibility. Under a "fair share" system, each party pays only for what it contributed towards contaminating a site. This approach to liability has been suggested by the chemical industry and others for more than a decade.

With respect to finding more cost-effective ways to clean up sites, we concluded that by considering future land use early in the remedy selection process, and by evaluating the "reasonableness of the costs" throughout the process, we stood to realize substantial savings without compromising health and environmental protections.

Another important issue involved in Superfund reform is the economic redevelopment of "Brownfields." These older, contaminated, idled or underutilized industrial or commercial facilities in our cities need to be brought back to productive use. Administrator Browner has aggressively tackled this issue with proposals to address the liability of prospective purchasers and by removing 25,000 sites from the Superfund Tracking System where no federal action is needed.

This Committee reported a bill that included some of these reforms by a unanimous 44 to 0 vote last May. Subsequently, that bill—with some additional changes to the groundwater provisions to address concerns of the electronics industry—was reported by the Committee on Transportation and Infrastructure. While all three House Committees of jurisdiction ultimately reported the legislation, the 103d Congress concluded without passing comprehensive Superfund reform legislation. Nevertheless, we found a great many creative solutions to the complex problems of Superfund, and that is why I, along with Mr. Mineta, introduced last year's compromise bill as H.R. 228 at the start of the 104th Congress.

Last August I received a letter from Mr. Frederick L. Webber, President of the Chemical Manufacturers Association, on the subject of that bill. He stated, and I quote:

"Never before have big and small businesses; bankers; insurers; major environmental organizations; community groups; and Federal, State and Local governments come together to work cooperatively to craft a piece of strong, consensus-based environmental legislation. Support of this legislation by such a diverse coalition is possible because its passage will constitute true reform.... The bill will ensure that cleanups are protective of human health and the environment while proceeding in a more expeditious manner. The bill will also make cleanups more cost-effective while providing for fairness in allocating liability and costs. Moreover the bill will, guarantee that the affected public has an early and active role in the Remedy Selection process. For these reasons and more a historic coalition ranging from the Chemical Manufacturers Association to the Sierra Club is supporting [its] passage.

I ask unanimous consent that the full text of the letter be inserted into the record.

While I sincerely hope we can arrive at a consensus on Superfund reform legislation, the actions of the Majority in the final minutes of consideration on H.R. 1022 earlier this year raise serious doubts. The Majority, through Mr. Walker, offered and adopted an amendment (Sec. 204) that may have far reaching effects on the level of cleanup, the applicability of state standards, and the pace of cleanups under Superfund. By defining cleanups exceeding $5,000,000 as a major rule, this provision extended the scope of H.R. 1022 far beyond Title III of H.R. 9 as originally introduced in the "Contract on America." There were no hearings by this Subcommittee on that amendment and no opportunity for Subcommittee or Committee Members to examine or debate its merits. Even worse, we had a grand total of eight minutes to debate the measure on the floor.

Mr. Chairman, industry after industry has advocated comprehensive Superfund reform, not piecemeal fixes. Members of the majority party have expressed support for a comprehensive approach to Superfund reform many times to me over the years. The House unwisely added to or superseded the decisionmaking criteria for a critical issue like remedy selection. I can only hope that the House's action earlier this year will not undermine our efforts to enact sound Superfund reforms.

CHEMICAL MANUFACTURERS ASSOCIATION
August 18, 1994

HON. JOHN D. DINGELL
U.S. House of Representatives
Washington, DC 20515

DEAR CONGRESSMAN DINGELL: I am writing on behalf of the members of the Chemical Manufacturers Association, representing more than 90 percent of the productive capacity for basic industrial chemicals in the United States, to request your support for prompt passage of H.R. 4916, the Superfund Reform Act of 1994.

H.R. 4916 (formerly H.R. 3800) has been favorably reported out of both the House Energy and Commerce and Public Works and Transportation Committees. The last committee of jurisdiction, Ways and Means Committee, is expected to report the measure today.

Never before have big and small businesses; bankers; insurers; major environmental organizations; community groups; and Federal, State and Local governments come together to work cooperatively to craft a piece of strong, consensus-based environmental legislation. Support of this legislation by such a diverse coalition is possible because its passage will constitute true reform.

The bill will ensure that cleanups are protective of human health and the environment while proceeding in a more expeditious manner. The bill will also make cleanups more cost-effective while providing for fairness in allocating liability and costs. Moreover the bill will, guarantee that the affected public has an early and active role in the Remedy Selection process. For these reasons and more a historic coalition ranging from the Chemical Manufacturers Association to the Sierra Club is supporting passage of H.R. 4916.

A number of amendments have been filed in anticipation of the bill going to the floor of the House. In particular, CMA supports the amendment that would strike the expansion of the Davis Bacon Act's provisions to cleanups paid for by private parties, and Congressman Swift's (D-WA) amendment seeking additional cclarification of the bills liability and allocation provisions.

CMA supports the Administration's request to extend the Superfund excise taxes on chemicals and petroleum and the corporate environmental tax ("CET") at existing rates for five additional years to fund the reformed Superfund program, including the provision for the reimbursement of costs attributable to orphan shares. CMA

urges that the Congress reassess the need to use the CET to fund budgetary or revenue shortfalls in the Environmental Insurance Resolution Fund ("EIRF").

We ask that you vote for H.R. 4916 and against any damaging amendments that would diminish the bill's anticipated savings or would fracture the diverse coalition supporting the bill. If you have specific questions regarding the bill or any of the amendments, please call Tim Burns, Vice President Federal Government Relations at 202/887–1124 or Robert Flagg, Director Federal Legislative Affairs at 202/887–1141. This is a critical issue that warrants immediate action.

Sincerely,

Frederick L. Webber, President.

Mr. OXLEY. The Chair recognizes the chairman of the full committee, the gentleman from Virginia.

Chairman BLILEY. Thank you, Mr. Chairman, and thank you for holding this hearing.

Ms. Browner, since we were talking about the Virginia site, I assume it was the Superfund site in Saltville——

Ms. BROWNER. Yes.

Chairman BLILEY. [continuing] Virginia, where you have proposed to excavate and incinerate 90,000 tons of soil at a cost well in excess of $20 million. Yet I understand that there is already a protective remedy in place, namely that the area has been covered with clay and planted with grass, that EPA's proposal has been opposed by both U.S. Senators from Virginia, the State's highest environmental officials, local government leaders, the local community and the local press, and that EPA's proposed remedy was never discussed in the feasibility study and has not been subjected to careful evaluation.

Why is EPA insisting on an extraordinarily expensive treatment process that provides no additional benefits to the environment, may cause more harm than good, and is opposed by everyone?

Ms. BROWNER. Mr. Chairman, we have not made a decision about what the actual clean-up activities will be at that site. We are in a public comment period right now. It closes on March 20th and we will thoroughly review all of the comments that we received from the citizens and all of the parties who took the time to speak to us about this site.

We understand that there are a number of people in the community, in the State, who would prefer one remedy over another and we will consider that input very seriously.

Chairman BLILEY. I hope you will, because Saltville is a very small place and $20 million is an enormous sum of money to Saltville, Virginia, I can tell you that.

Ms. BROWNER. Mr. Chairman, if I might.

Chairman BLILEY. Sure.

Ms. BROWNER. As I understand it, the cost of this clean-up will be borne by the responsible party. I don't believe that this is a cost situation that will be borne ultimately by the city. That is my understanding of the site.

Chairman BLILEY. Okay, well, I hope that is the case but at least all of the people down there oppose it, so I would hope that you would give serious consideration to their comments.

Ms. BROWNER. Yes.

Chairman BLILEY. I am also pleased that your testimony states a willingness to work with Congress for real Superfund reform.

Superfund is projected to cost over $150 billion and a great deal of frustration. As we know, much of that cost and frustration is not

necessary. Too much is spent on litigation and administrative costs. Too many remedial decisions expend millions of dollars based on questionable and unrealistic priorities.

I hope by the end of this Congress we can make a change in this program with respect to these fundamental problems. However, I want to understand your defense of what you term "the polluter pays" principle including retroactive, strict joint and several liability.

My first concern is the inordinate amount of transaction and administrative costs associated with this system.

My staff has prepared several charts that I would like to refer to.

The first chart, which would be on your left, is a pie chart of clean-up spending versus non-clean-up spending for fiscal year 1995 at NPL sites. Non-clean-up spending includes the cost of a PRP and insurer, litigation, and transaction costs of $1 billion and Federal Government administration and overhead costs of $680 million, and that is just in fiscal 1995.

Aren't a lot of these non-clean-up costs related to the liability scheme and couldn't elimination of or radical revision of the retroactive liability scheme both reduce the adversarial nature of the program and reduce the transaction costs?

Ms. BROWNER. Mr. Chairman, we have no disagreement with the need to develop an allocation system that is fair, that allocates the clean-up costs in an efficient and fair manner. What we do believe is important is that the concept that "the polluter pays" be retained.

We don't think the American taxpayers should be asked to pay to clean up the pollution that they did not cause. By changes in the allocation system, in the liability scheme, we believe you can essentially get the lawyers out, get rid of the unnecessary and expensive litigation which occurs today—not largely with Federal dollars but with private dollars, but nevertheless dollars that are important to the health of our economy.

So we would like to work with the committee to help ensure the development of an allocation system that is fair to all parties and that appropriates liability in a way that people pay their fair share but retains the underlying principle that the polluters should pay to clean up their pollution.

Chairman BLILEY. Well, I see my time has expired. I am glad to see you used the word "fair to all parties" because I have some problem with the retroactivity when somebody is doing everything at that time that was within the law and abiding by all of the rules for Congress to come in and suddenly after the fact say, well, you did all right but we have decided to change the law and therefore you have got to go back and pay. I have a little problem with that.

Ms. BROWNER. Mr. Chairman, if I might respond to the full committee chairman on that just very briefly, the administration in crafting its Superfund proposal last year looked at the very issue that you raise, Mr. Chairman. What we found is that you would be merely replacing one type of litigation with another, that you wouldn't have solved the underlying problem.

We are all frustrated by the number of lawyers who are now involved in Superfund. We want the lawyers out.

If you change the system in a way that the litigation then ensues over when someone did something, what they did, what the laws were, you haven't really solved the litigation problem. You have just changed the nature of it.

Chairman BLILEY. Thank you, Mr. Chairman.

Ms. BROWNER. Thank you.

Mr. OXLEY. Let me just ask a follow-up. In your estimation then, is there a bigger problem with the joint and several regime than there is with retroactive, and if so, how would you suggest that we deal with it?

Ms. BROWNER. I think the issue is allocation. The question is who should be in the Superfund net, who shouldn't be in. Clearly certain people should be out.

The law needs to be absolutely clear about that, and then small businesses, should be dealt with for example, on an expedited basis. Let's hurry up, get it figured out, let them know what they owe. For the bigger parties, let's bring them together, sit down, figure out in a non-judicial setting what is fair for each of them. We believe that one of the ways to structure that program is to include an orphan share, that brings the Federal Government to the table in the way it has not been previously at these sites. The issue is how to develop an allocation system that achieves the purposes of getting the sites cleaned up in a fairer, faster, and more efficient manner.

Mr. OXLEY. May I inquire, what is your schedule in terms of having to get down to 1600 Pennsylvania Avenue?

Ms. BROWNER. I apologize, Mr. Chairman. They are saying that I do need to go at this point.

Again I want to thank you for your accommodation and I am more than happy to come back whenever it can be arranged with the committee.

I apologize to all the members of the committee. There was a scheduling change involving some announcements that the President is making about my Agency today and unfortunately the times were changed and I do need to leave so that I can be there with the President so we can make a series of announcements about the Environmental Protection Agency.

Mr. OXLEY. I understand. If I could just yield briefly to the gentleman from Texas and the vice chairman of the subcommittee.

Mr. FIELDS. If I could, Ms. Browner, and I appreciate your schedule, we appreciate you being here but following on what Chairman Bliley and others have talked about, and that is the "polluter pays" concept you have talked about today, would you accept a new liability standard based on causation?

Ms. BROWNER. On the question of who pays, we believe that the polluters should pay. If someone made a mess they should pay to clean it up.

How you decide the amount that each polluter pays, the system to use for determining that, is something that we think should be made fairer and, more efficient, and I think that's what we sought to do last year in our proposal.

Mr. FIELDS. The reason I raise that is that 50 to 60 percent of the costs are borne by the petroleum industry. We have only contributed 10 percent of the material to these sites, and there is a

real concern on our part that our system has been a system directed at deep pockets, that if you have got a deep pocket even if you have contributed a small amount, you are the one who pays. So this issue of causation is very important to some of us.

Ms. BROWNER. I understand that. Obviously causation is a difficult issue. In an allocation system you would clearly look at what was each party's share, what did they bring to the problem? Obviously there is the issue with the petroleum industry of the tax which they pay a portion of that creates the trust fund.

It is important I think to recognize that while the tax generates about $2 billion a year, there's $10 billion in private moneys going to clean up these sites outside of the trust fund. Parties are stepping up, taking responsibility. The concern we have in some of the changes and proposals that we have heard is that you'll lose all of that activity, and those communities that have literally waited for more than a decade to see the site in their community cleaned up will once again be told you have to wait, it's not going to happen this decade.

Mr. OXLEY. Again we thank you for being here.

Ms. BROWNER. Thank you.

Mr. OXLEY. The good news is that Mr. Laws will remain.

Ms. BROWNER. Yes.

Mr. OXLEY. For the really tough questions.

Ms. BROWNER. I thank you, Mr. Chairman.

Mr. OXLEY. And we look forward to having you back very soon. Thank you.

We'll continue the questioning with Ms. Furse.

Ms. FURSE. Thank you, Mr. Chairman. Mr. Laws, while we talk here endlessly about the dollar cost, it seems to me that the Superfund clean-up issue came about because a real problem exists and that that real problem is the health cost to our citizens.

It's my understanding that the Agency for Toxic Substances and Disease Registry in February opened their registry up to Internet and that they have already had approximately 46,000 requests for information about Superfund data.

As a person who myself lives and all my constituents live down-river from the Hanford Nuclear Weapons site's leaking system, I would like to have you comment on what you have learned about the health concerns of folks who live near or down-river from a Superfund site.

Can you help me with that?

Mr. LAWS. Certainly, Congresswoman.

There are actually two phases to that. The Agency for Toxic Substances and Disease Registry has been studying this problem in conjunction with several State health agencies as well and they have funded several studies which are evaluating the actual health impacts around Superfund sites.

What the studies are finding is that there are alarming rates of birth defects that increase the risk of death and significantly reduce the quality of life among newborn infants, and these include heart defects, brain and nervous system abnormalities and limb abnormalities.

New York State did a study that addressed 590 toxic waste sites, and of residents living within 1 mile of these sites and discovered

that they had a 63 percent higher rate of birth defects at those particular sites. Five counties surrounding San Francisco Bay containing 500 toxic waste sites, found that residents living near those sites had a 50 percent elevation in heart defects, a three-fold elevation in spina bifida, a two-fold elevation in limb deformities.

New Jersey studies of public drinking water contaminated by toxic waste sites have found elevated rates of major heart defects, central nervous system defects and cleft palates.

ATSDR is following up on these studies to validate the results. Their preliminary results confirm these findings. What we are finding is that there are significant health impacts associated with Superfund sites.

On a different level there is clearly the emotional impact that is involved. I mean people who live next to these sites are scared to death.

The Administrator in a couple of other sessions reported on a meeting that she held in Atlanta last month. There were 400 people there. Many of whom lived near Superfund sites and literally accused the Agency of killing them because we are not responding quickly enough to their neighborhoods, which are located next to Superfund sites. While we are very sensitive to the economic concerns that have been raised by this program and are going to work very hard to address those as best we can, I don't think we can put aside the real health impacts that this statute is intended to address and the real health concerns that citizens in this country are facing as a result of them.

Ms. FURSE. Well, it would also seem that the cost to health, the actual health cost and the emotional, all those things, are a staggering cost that this country is going to have to bear.

Mr. LAWS. It clearly is and many of these individuals simply do not have the ability to pay for health care. We are also finding that in the area of environmental toxicity that the medical profession, quite frankly, does not always have the expertise to identify these affects.

I have been to numerous sites around the country where people say they have gone to the doctor and the doctor can't find anything that is wrong with them, but when we find an expert in environmental toxicology or someone who has had some experience with regard to that, we find that there is an environmentally related problem.

The city of Los Angeles has identified environmental toxicology as probably one of the few medical specialties that is underserved in the State of California, and so it is a real problem for people in those areas.

Mr. OXLEY. The gentlelady's time has expired.

Once again, the gentleman from Texas, the vice chairman of the subcommittee for 2½ minutes.

Mr. FIELDS. Could I ask consent to have 5 minutes, because I was going to say something nice about you.

Mr. OXLEY. Okay. Five minutes.

Mr. FIELDS. First of all, let me say, Mr. Chairman, that I appreciate you holding these hearings today.

I think these are extremely important and I just say hallelujah that we are finally looking at this issue in a real way and in fact

that we are no longer going to play the margins but we are going to win, and to me a win gets sites cleaned up with real cost benefit analysis and real risk assessment.

I just hope that we proceed, Mr. Chairman, with the same speed of your famous finger roll move to the basket——

Mr. UPTON. Or his slide into second.

Mr. FIELDS. Which is very fast. But I want to go back to what I was talking about just a moment ago with the Administrator. I really do appreciate her bending her schedule a moment to respond to the question of causation, because as you can assume, it is a great concern to those of us who have been involved with this issue for any length of time, and the Administrator today talked about those responsible for the pollution actually paying to clean it up, but the fact is the current liability system says that anyone connected to a site in any way is jointly and severally liable for all clean-up costs whether or not they were negligent and whether or not they obeyed the law and whether or not they actually caused the harm.

I have had the real world experience, as have many on this panel, of trying to get sites cleaned up. Fourteen years ago we had three sites designated in what was then my Congressional district. We had a number of responsible parties, good corporate citizens, step forward and say we will clean up to a world standard until they realized they could not get agreement with the Environmental Protection Agency as to what would be that world class clean-up and whether or not they would be insulated from future liability.

But going back again to this concept of causation, because I think it is central, if you are really wanting to see sites cleaned up quickly and sites cleaned up in a way that really make a difference, and I want to come back to you and ask the same question I asked of the Administrator, would you accept a new liability standard based on causation: only parties which caused pollution would be liable or perhaps on violations of disposal laws at the time which caused environmental harm?

Mr. LAWS. I think the administration would have a significant problem if that were the sole basis. I think in the allocation schedule that we developed last year causation certainly was a factor that the allocator could take into account and we think that is appropriate.

However, you have to realize that one of the main aims of this reform is to cut down on the litigation, the transaction costs. I fail to see how putting in a standard "you are only going to pay if you did something wrong" is going to change that. It's clearly going to be a situation where those companies who do have some causal responsibility for pollution seek to litigate that issue.

Mr. FIELDS. Are you saying people should pay if they didn't do anything wrong?

Mr. LAWS. Well, you also have to realize that when a lot of this pollution was created and disposed of there were no laws. I mean there was just no understanding of what American industry was doing and how it would impact on the environment so it is not a matter that you did something wrong.

You might have complied with the laws but quite frankly the laws were not sufficient to protect the environment, or to protect

human health. I think that is clearly the reasoning that Congress took back in 1980. But, I think if we focus solely on causation I think we run into a major problem of trying to figure out who is responsible, with people fighting among themselves to say who was responsible. And I really don't think that we'd be achieving the goal we want.

Mr. FIELDS. I want to recognize that even when we were in the minority you cooperated with all of us and you have always been open and available and we appreciate that very much, but I want to try to understand where the administration's flexibility is on this concept of causation, if there is any.

Mr. LAWS. Well, as I said, we certainly think that causation should be a factor in deciding what a party's fair share is. It was something that we included in last year's provision. Beyond that, we would have to see exactly what the suggestion was.

As I said, I think we would have tremendous difficulty if causation were the sole basis of liability, but between it being the sole basis of liability and where we were last year, we would certainly be willing to look at a proposal and see if it is something that we could agree with, but I do not think that a causal liability system is the appropriate way to address this problem.

Mr. OXLEY. The gentleman's time has expired. The gentleman from New Jersey.

Mr. PALLONE. Thank you, Mr. Chairman.

I just wanted to say, to start off, that my district includes eight Superfund sites and I guess many people realize that New Jersey has the highest concentration of Superfund sites in the Nation.

Obviously the program is vitally needed, especially in our State, to safeguard the public health and safety.

I appreciated the fact that the Administrator put a lot of emphasis in her written testimony on health effects and specifically mentioned the work that the Agency for Toxic Substances and Disease Registry had been doing.

I have had a lot of concern though from my constituents about the relationship, if you will, between the ATSDR and the EPA and concern that in many cases that when the ATSDR actually makes findings about health effects that there isn't necessarily a requirement under the law or a relationship between what the EPA has to do under the Superfund program to respond to the health effects that are identified by the ATSDR.

I don't know, this may be a difficult question, but is there some way to strengthen the law so that there has to be more of a response to what the ATSDR does? I mean I am not sure I understand the relationship between their findings and their recommendations and what has to actually be done by the EPA at a given site.

Mr. LAWS. Usually ATSDR will make an identification of the health effects to do. They rarely make specific recommendations in terms of remedial activities.

We have situations where they make recommendations as to what we should do when we are conducting our mediation.

For example, they have on occasion recommended that a neighborhood should be temporarily relocated while the Agency is doing soil removal or things of that type.

We do not have a situation currently where they make recommendations as to what the remedial activity is. Quite frankly, it's not something that they want to do. We do allow them to review our proposed remedial options when the proposed record of decision goes out and they are free to comment as they have on numerous occasions, and I am sure there are instances where a region has either selected or chosen not to select a particular remedy based on the comments of ATSDR.

In the general area of improving the relationship between the two agencies, I will admit that in certain areas it has not been as cooperative as it should have been.

What we have done, and I think very successfully, is to work with their parent Agency, Health and Human Services. They are a part of the Public Health Service, and I have met with Dr. Phil Lee, the head of the Public Health Service on several occasions and have received his support in not only providing ATSDR support but from other agencies of the Public Health Service as well, such as the Center for Environmental Health, the Centers for Disease Control. We are in the process of formulating a good working relationship where ATSDR can expand upon its limited resources under the Superfund authority as well as call upon other agencies of HHS to give the Agency a clearer understanding of what the health impacts are and how our proposed remedies affect health.

Mr. PALLONE. Would you see any suggested changes in the reauthorization of Superfund that would improve that relationship or perhaps get away from the problem that I have had several times where people, constituents feel that the ATSDR has made recommendations and they haven't necessarily been followed up in the remedial plan?

Mr. LAWS. Clearly, when ATSDR identifies a health risk, I think a requirement that the Agency address that and how our proposed remedy will affect the health risk is something that certainly could be done.

I think we are moving in that direction now. We are, as I said before, trying to get the agencies working closer together. Our regional administrators have all met with their counterparts in regional Public Health Administration offices to ensure that we are working together.

I think a lot of the problems that have existed and that you have probably experienced in your district, quite frankly, are nothing more than turf battles that are common between all Federal agencies. We have made a tremendous effort to try and remove those instances.

I have been more than willing to get involved in specific instances where it appears that we are not focusing on what is supposed to be accomplished but are dealing more in protection of turf and personalities.

Mr. OXLEY. The gentleman's time has expired.

Mr. PALLONE. If I could just comment quickly and say that I appreciate the fact that I know that the Agency has tried to respond many times to what the ATSDR would do on an individual basis and I am not being critical of that. It's just that I think that it might be better if there's some sort of statutory relationship or improved some way on a permanent basis. Thank you, Mr. Chairman.

Mr. OXLEY. The gentleman from Pennsylvania.

Mr. GREENWOOD. Thank you, Mr. Chairman. Mr. Laws, I would like to focus on bases, military bases, that are scheduled for closure by the Base Realignment and Closure Commission.

In my district the Naval Air Warfare Center is our largest employer in the district. It is closing and we are left as a community trying to figure out how to re-use that site, make it an economically viable new place of employment.

On that site are eight Superfund sites. They are not of the worst kind. They contain old landfill sites from the 1940's and 1950's with paints, solvents, sludges from industrial wastewater treatment and waste oils. There are some aviation spent fuel spills and things of that nature.

The questions are, number one, as we reauthorize Superfund, do you think it makes some sense to carve out an expedited process for some of these military bases for two reasons. One, there is usually little or no dispute as to who is the responsible party. Clearly that responsibility has been assumed by the Department of Defense. Two, there is the urgency of reuse. The base is going to quickly be evacuated. There's a big economic hole in the community. We need to quickly bring in the private sector to create jobs and we can't, just literally can't afford years of delay.

So, number one, does it make some sense to have an expedited process for these closing bases when there is no controversy with regard to responsibility? Two, do there seem to be sufficient funds within DOD to pay for these clean-ups or is that something we need to be looking towards from the budgetary point of view?

Mr. LAWS. In terms of an expedited process, we have worked very closely with the Department of Defense to try and expedite the process of base closures.

They have provided the Agency with 100 FTE and approximately $7 million so that we can actually put an EPA person at a base with the DOD lead and the State lead to ensure that the sites move as quickly as possible.

Mr. GREENWOOD. Are there any statutory limitations that you see as not necessary?

Mr. LAWS. Well, a report for my attention and for Sherry Goodman over at the Department of Defense is being prepared that will review what the experience has been with the BRAC teams. The report will identify the obstacles they have encountered. We are expecting that report in time for our next Defense Environmental Response Task Force meeting, which will be held in June. We will then be in a position to see if there are statutory obstacles, whether they are regulatory or whether it is just the amorphous process problems that sometimes arise when you are dealing with two Federal agencies and a State government.

Mr. GREENWOOD. Very good. Anything as to the funding?

Mr. LAWS. With regard to funds, we have not run into a huge problem with the current funding levels for the Department of Defense. Now there are numerous proposals out to cut the environmental response funds in the Department of Defense. There are actually some suggestions which have originated within certain quarters of the Department of Defense to cut the funds.

If any of those go through, then clearly there is going to be an impact, although particular BRAC bases may not be involved because the issue may be where they would prioritize ongoing operations and closing base operations. But if the dollar amount were to be reduced significantly, then I think we would be facing a very significant problem.

Mr. GREENWOOD. I thank the gentleman and yield back.

Mr. OXLEY. The gentleman from Louisiana, the ranking member of the subcommittee.

Mr. TAUZIN. I thank the Chair. Mr. Laws, if you owned an Edsel, if you were the only one in town still with an Edsel, and we made a law that said we determined that Edsels pollute and that you polluted the city all the years you have driven the Edsel and that no other Edsels are left and no other owners are left and they drove around for many years polluting this city too and therefore we are going to charge you not only for your pollution driving that Edsel, which was perfectly legal to own and drive all these years, but you are going to have to pay for everybody else's pollution and costs for driving Edsels around all these years, how would you feel?

Mr. LAWS. I'd probably not feel too good but I also don't think that the——

Mr. TAUZIN. The analogy is not right?

Mr. LAWS. [continuing] the Edsel, even with its checkered history, is comparable to companies that have dealt with hazardous waste and have known that they were dealing with substances that required an extra degree of care in their disposal.

Mr. TAUZIN. Well, I think you might be right. If you knew the Edsel was really a pollution to this community and you still drove it around all these years you might have a problem, but there are many people that didn't know. Many people created sites or contributed to sites without knowing that they were creating any problems and we have made them not only liable for what they caused—if they are the only ones around we made them liable for everything everybody else caused to that site—and I suggest to you there are some equity problems there.

Mr. LAWS. I would agree with that, Mr. Tauzin, and I think that what we came up with last year was a major change in the way the administration was looking at that. There are situations where the Federal Government has a responsibility to step in, that we should take more into account as to what the particular contributions of a person are. They probably should not be asked to pay for the share of other Edsel owners.

Mr. TAUZIN. Yes, I mean if you really want a "polluter pays" argument and if you are really going to go back retroactively and now decide that somebody did something that was legal then that you want now to make illegal and make them responsible for, it's a stretch to say you are also going to be responsible for everything everybody else did that you weren't responsible for, and I think that's what the gentleman from Texas is getting to.

We need to have a fairer system and somehow allocating responsibility if we really want "polluter pay" to work.

Mr. LAWS. I think that we would agree with that. We do want a fairer system. We do want a system where the Federal Govern-

ment through the orphan share takes on some degree of responsibility.

Mr. TAUZIN. Second, do you think it is really fair from an environmental justice standpoint to have a selection process for sites for clean-up that is really slanted heavily for more urban populated areas and really rules out rural sites where poor people live and very often where the neighbors, too many of these sites—my friend from New Jersey mentions his State as having the highest concentration of sites. His are the highest concentrations of sites on the list. I wonder if that ranking would still remain if we had a different set of criteria that would list all the rural sites and some of the rural States like Louisiana, which don't get listed because they are not close enough to a big urban center, and yet many rural poor people are as close to a site that probably should be listed and cleaned up as anyone in an urban center and suffer the same consequences, perhaps.

Mr. LAWS. I would agree with that. I think we have discussed that as well, that the current system does not seem to be taking into account some of the more remote areas.

Mr. TAUZIN. Would you support changes to correct that inequity?

Mr. LAWS. Actually last year we came in with some suggested changes, additional things that we could take into account to make sure we capture some of those communities.

Mr. TAUZIN. Finally, in the limited time I have because I do want to make sure everybody gets in here, I just received another letter from a realtor back home who just lost a $550,000 sale on a site. Now he lost a sale. That's not good. But what's more important the sale would have created 300 jobs in my home town of Thibodaux, Louisiana that are not going to be created now.

He lost it because the engineers who do the environmental analysis of the former industrial site found a barrel of oil leaning against a wall. The State had agreed to remove, hadn't removed it yet when the engineer showed up. They removed it, cleaned up whatever stains were on the wall, but the engineers took pictures of it. I want to point this out to you. The problem with the failure of that sale going through and 300 jobs was that the bank when it saw those pictures could not bear to take responsibility for lending money on that site.

Now I thought FERC and ERF were your best acronyms, rather names around here, but we got a new one—NFRAP you came up with.

Mr. LAWS. NFRAP.

Mr. TAUZIN. Yes, NFRAP. You don't have a vowel in there and Cajuns can't handle NF I promise you. This NFRAP thing you've got now, does that relieve liability under Superfund?

Mr. OXLEY. Last question.

Mr. LAWS. That would not address the particular problem probably that you raised.

Mr. TAUZIN. The banker couldn't still lend money even if it was in a NFRAP?

Mr. LAWS. That could be a problem. It's the lender liability rule, which we are going to issue this year as guidance. But in order to give the banks the comfort that they seem to need, we are going to have to have a statutory change.

Mr. OXLEY. The gentleman from Washington State.

Mr. WHITE. Thank you, Mr. Chairman. I appreciate you holding these hearings. Mr. Laws, I appreciate your coming and staying late.

I have just a couple of general questions and then a couple of specific ones I would like to deal with.

You know, we hear a lot of numbers. Can you tell me in your view, do you know how many sites have been put on the Superfund list since the inception of this program?

Mr. LAWS. There are just under 1,300.

Mr. WHITE. Does that include sites that have already been cleaned up?

Mr. LAWS. Yes.

Mr. WHITE. There have been 1,300 on it basically for all time.

Mr. LAWS. There are 1,241 on the list and I think we have got 55 proposed at this point in time.

Mr. WHITE. How many of those have been cleaned up? I mean how many of them are remediated and back in business?

Mr. LAWS. We have 282 construction completes.

Mr. WHITE. 282. Can you tell me how much money we have spent to accomplish that?

Mr. LAWS. Federal dollars or——

Mr. WHITE. I'd start with Federal dollars, yes.

Mr. LAWS. The total is $13 billion.

Mr. WHITE. $13 billion, okay, and do you have an idea for how much private money might have been spent or something other than Federal dollars?

Mr. LAWS. In terms of clean-up I think it's approximately $10 billion.

Mr. WHITE. $10 billion, okay. Thank you very much.

Let me talk now about a specific problem we have in our State and I would frankly like to use this as an example of how you think these laws ought to be amended to work a little bit better.

I don't know if you are familiar with this particular case. It's the Tillalup landfill, just north of my district in the Puget Sound area, and let me just give you a little background on it.

This is a landfill that of course has been in operation for 30 or 40 years. It is not on the Superfund list now, though I think it is a candidate to get on the list.

There are probably half a dozen major contributors to the pollution there, namely waste hauling companies, garbage companies that used that site over the years.

Now there are also another 400 or so minor contributors. Essentially these people were customers of these waste hauling companies who have also been contacted by your Agency and I get, as I understand it there has been an initial analysis. No risk assessment has formally been done but they are now in the process of talking to these 400 small contributors and basically asking each one of them to pay a certain amount to relieve them of their liability and basically get out of this process.

I would like to ask you is that the sort of thing that you think is an appropriate use of the laws at the present time? Is that a good procedure to have or is that something that we ought to change by going forward, the idea of giving these small people who

really just signed up with a waste company to haul their trash, get them involved in an early stage when we don't know the magnitude of the liability and make them pay?

Mr. LAWS. One of the major criticisms of the program has been the involvement of small parties. If in fact there is some liability then we think that the approach that the region is taking to meet with these people, get their liability resolved early in the process, is good. What we found has happened, however, is that as you wait the larger parties will then themselves go out and bring in the smaller parties. That has led to many of the criticisms of the programs. What we try to do is identify the small parties, get a settlement with them early in the process so they don't have to incur the liability costs.

If they fall into certain categories, have sent a very small amount of waste or they are de micromis parties, they would have no liability whatsoever. It sounds like you are talking about the de minimis category where they are small but do have some liability and we're trying to get them out, and get them their contribution protection before they incur large amounts of transaction costs.

Mr. WHITE. Okay, and I take it under your concept of the "polluter pays" you still think it is appropriate for a small person who may have contracted with the waste hauling company to be responsible for damages in this sort of situation?

Mr. LAWS. If the option is them or the taxpayers, yes.

Mr. WHITE. Okay, very good. Let me ask you another question. Administrator Browner talked a little bit about wanting to have increased flexibility and not having a one size fits all solution. I think we can all support that concept in general.

One of the problems that it creates for me though is I am a little uncomfortable with Congress writing a blank check to the Environmental Protection Agency giving it lots of flexibility and letting you go out and decide how these things are done.

How can we do a better job and how can we give you flexibility in a way that doesn't just give you a blank check to make all these decisions? Can we deal with local people? Is that a way to get them more involved? Is that the check that we should have on your discretion?

Mr. LAWS. We believe that community involvement is probably the greatest check because those are the people who live near the sites, whose children live there and whose future is directly related to it.

We have found that having them involved opens up a lot of options that we in our ivory towers might not otherwise have considered, so I think that is a major component of providing that flexibility.

Mr. OXLEY. The gentleman's time has expired.

Mr. WHITE. Thank you, Mr. Chairman.

Mr. OXLEY. The gentleman from Queens.

Mr. MANTON. Thank you, Mr. Chairman. I would also add the borough of the Bronx for 20 percent of the district.

Mr. Laws, I wasn't here for Ms. Browner's testimony and forgive me if I am redundant. I see in her prepared statement that she talked about the Brownfields initiative.

I represent an area that has some aging commercial and industrial facilities, a lot of it is under-utilized and is sort of industrial slum in almost center city.

Could you tell us some more about the Brownfields initiative and what you expect to accomplish with it?

Mr. LAWS. What we have identified, Congressman, is exactly the problem you mention, especially in our urban areas, but quite often in some of the rural areas as well, lightly or moderately contaminated properties sit under-utilized because of a lot of the fears that Mr. Tauzin mentioned as well. The Brownfields initiative is attempting to figure out a way to revitalize those areas.

We are trying to identify the barriers. We know that there are fears among the community of people who would move in to redevelop such an area that maybe the Federal Government is going to one day require some action under Superfund. So, we are going to be, as Mr. Tauzin said, NFRAPing these sites, that is, we will be dropping them from the Superfund database as sites that are no longer of interest to the Federal Government.

We are going to be looking at providing comfort letters to companies explaining to them that we have no further Federal interest in this particular site.

We are looking at prospective purchaser agreements which for certain sites will provide prospective purchaser relief that they won't be brought into the net of Superfund liability.

We are going to be working with certain States to help them move forward with their voluntary clean-up program. Certain States have already developed their own voluntary clean-up programs. They are operating very successfully. Other States, for a number of reasons, many of them financial reasons, have not been able to develop them. We are going to be providing some additional funds to States to address, to develop voluntary clean-up programs of their own so that they can work with their businesses to get some of these sites back into productive use.

The Brownfields Initiative is basically a response to what we have been hearing about one of the unanticipated results of the Superfund program, that not only is it having an impact on heavily contaminated sites but it is having a trickle-down influence on lightly contaminated sites. Our effort is basically intended to identify what those obstacles are, and try and remove them. I am fairly certain that some of the legislative changes that we will be debating for Superfund this year will go a long way in helping that project forward as well.

Mr. MANTON. I notice in the written testimony you talked about 50 sites——

Mr. LAWS. Fifty pilot sites over the next 2 years.

Mr. MANTON. Are there any in New York?

Mr. LAWS. No. We have one fully going in Cleveland, Ohio, yes.

Mr. MANTON. Cleveland?

Mr. LAWS. Yes.

Mr. MANTON. But how about New York?

Mr. LAWS. At this point no. We have only awarded three to date. Cleveland was awarded in 1993. Bridgeport, Connecticut and Richmond, Virginia were awarded last year.

Mr. MANTON. How does one get the award?

Mr. LAWS. There is an application that is sent in. We have a review team that will be assessing the applications. We are also going to identify various categories of sites to make sure we get a broad range of experiences. We want to make sure that our ultimate recommendations on a national policy reflect all the potential situations. But we would be more than happy to provide your office with an application. We are going to have rolling announcements throughout the next 2 years because there has been such a tremendous interest in this program by cities all over the country.

Mr. MANTON. I would just like to say in conclusion, congratulations on the hiring of Jim Matthews, my former Staff Director. You stole him away from me but he is a good man.

Mr. LAWS. Well, we are glad to have him on board and we will be sending him up here a lot, too.

Mr. MANTON. Mr. Chairman, I would ask unanimous consent to put an opening statement in the record, if I might.

Mr. OXLEY. That would be appropriate and so ordered.

Mr. MANTON. Thank you.

[The prepared statement of Hon. Thomas J. Manton follows:]

PREPARED STATEMENT OF HON. THOMAS J. MANTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Chairman, I am pleased to be here today at this first important hearing on reauthorization of the Superfund program. I look forward to working with you, Mr. Chairman and my colleagues on the subcommittee as we work to strengthen and improve this important environmental program.

As a member who hails from an urban district which continues to be home to some manufacturing, I can empathize with homeowners or property owners who make the harrowing discovery that their land is dangerously contaminated. My district, fortunately, has had only one superfund site discovered within its borders, however, I am aware that such a site could be found at any time.

Government environmental programs generally have few supporters. Environmentalists criticize the programs because they do too little, businesses argue that they do too much.

I urge my colleagues to bear in mind that our purpose here today should be to constructively examine the Superfund program, to determine what works and what doesn't. We must remember that the superfund program was designed for the purpose of cleaning up hazardous sites to protect human health and safety, a policy with which no one can argue.

I approach the issue of Superfund reauthorization with an open mind. I have no doubt this hearing process will provide this Committee with valuable recommendations about how the clean up process may be improved.

I look forward to hearing from those in the field who have differing opinions as to how the program should be changed.

With that said, I have three primary concerns. Environmental cleanup is an expensive process, and this Congress cannot afford to require the Federal Government to bear any more of this burden than we are presently responsible for. Any change in Superfund's liability scheme, therefore, must be paid for. Second, we must ensure that the liability scheme set up by the Congress is as fair as possible both to those who have already paid into the system and to those who may have to in the future.

Third, and most importantly, we must ensure that Superfund works to provide a cleaner and safer environment for future generations.

Thank you for scheduling this hearing and I look forward to hearing the testimony of the witnesses.

Mr. OXLEY. The gentleman from Kentucky, Mr. Whitfield.

Mr. WHITFIELD. Thank you, Mr. Chairman. Mr. Laws, I wanted to ask you a few questions regarding the remedy selection process and really what sparked my interest in this was reading over this testimony, particularly the Saltville, Virginia issue where Olin Company had operated this facility for a number of years, then in

1972 stopped using that chlorine site and over the last 20 years they have spent $22 million. They dredged part of the river to remove the mercury contamination. They have placed it in environmentally safe bags, buried it, and in working with you all very closely and with the State Environmental Quality people have agreed to continue monitoring and with the water treatment plant they put in and so forth they may spend another $20 million in fixing the site.

It seems like of all the alternatives discussed that you have come up, as the chairman said, with digging up 2½ acres, 15 feet deep, 90,000 tons, containing metallic mercury, transporting it across town, and building an incinerator on another location. Some of the standards for that incinerator indicate that it may need to be burning 18 pounds of dirt an hour and at least what is feasible seems to be like 3 pounds of earth an hour.

How did you make this determination that this would be the most cost effective way to deal with this problem when even Virginia Environmental Quality people say that the site right now seems to be fine and it should continue to be monitored? What process did you go through?

Mr. LAWS. As the Administrator said, there has not been a final decision made as to what the remedy will be at that site. The public comment period is still open, and it closes March 20, and then we will be evaluating comments. I understand that there are several other options which are being actively proposed—some by the company and some by community groups.

The Agency for Toxic Substances and Disease Registry is doing some further health analyses down there as well and all of that will go into the final remedy selection that the region will be making at that site.

Generally, a range of remedial options from no action to the most—euphemistically speaking "Cadillac remedy" are evaluated by the region, sent out for comment, and based on the comments and the nine balancing criteria under the current law, we then make a determination as to what the appropriate remedy is that will be fully protective of health and the environment.

You have to realize that operating under the current statute there is a bias for permanence and treatment—permanent remedies and remedies that treat the waste.

What we are looking for through reauthorization is some flexibility to let us look at particular future land use criteria, and to a greater extent to consider what the community is looking for and be able to make those decisions on that basis.

I might also add with regard to that particular site my understanding is there has been a ban on fishing because of the waste located at that site for the last 20 years. We are dealing with mercury, which is one of the most hazardous substances that we do have to deal with.

Mr. WHITFIELD. You say that the current law creates a bias for permanence in treatment?

Mr. LAWS. Permanence and treatment. That's correct.

Mr. WHITFIELD. Now let me ask you one other question. It says in determining an acceptable remedy, is the requirement that it at-

tain applicable or relevant and appropriate requirements? What does that actually mean?

Mr. LAWS. Those are generally State requirements that would normally apply to the particular activities that are ongoing at a site. They could be State water quality standards. They are State standards that apply to remediation activities, but they are State laws that the PRP's would be required to meet or we'd be required to meet in performing a remedial activity.

Mr. WHITFIELD. Now in the proposed plan to deal with the Saltville, Virginia facility or problem, who in EPA actually made the final decision that this would be the proposed plan, to build the incinerator and so forth?

Mr. LAWS. Again, there has not been a final decision.

Mr. WHITFIELD. But I mean in submitting the proposal, who made the decision to submit that particular proposal?

Mr. LAWS. I'm not sure I am following you. The proposal for incineration? Where did that decision come from?

Mr. WHITFIELD. Yes.

Mr. LAWS. My guess it originated with the Waste Division Director.

Mr. WHITFIELD. I'm sorry?

Mr. LAWS. Generally, the Waste Division Directors in the regions are the ones who have the final say as to what proposals go into the proposal.

Mr. WHITFIELD. Thank you.

Mr. OXLEY. The gentleman's time has expired.

The gentleman from Massachusetts.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

May I ask, sir, as the second major piece of environmental legislation is considered this year how it would interact with the first major piece, which is H.R. 1022, the risk assessment legislation which moved through this committee and through floor consideration already?

As you know, during floor consideration of H.R. 1022, the risk assessment bill, Representative Walker of Pennsylvania offered an amendment which was successful to extend the risk assessment and cost benefit analysis provisions of the bill to Superfund cleanup actions as well.

Could you please give us your opinion as to what the effect of that amendment will be on the ability of the EPA to ensure that the sites around this country are going to be cleaned up?

Mr. LAWS. Our understanding of the amendment is that it will most likely slow down and increase the costs associated with cleaning up sites that have not yet had a final remedy selection put in place.

Our understanding is that if we are to propose a remedy in excess of $5 million then all of the cost benefit and risk assessment requirements of the full risk analysis bill would then have to be performed just when the Agency is finishing its own often lengthy analysis of risks and, analysis of costs. We would then be kicked into another loop of analysis.

Mr. MARKEY. So it would be several years and——

Mr. LAWS. We think it could add as much as 2 to 3 years to the process.

Mr. MARKEY. Now in my district I have several Superfund sites, the most famous of which, the Woburn hazardous waste site, was one of the top five in the United States throughout the early 1980's and it is the industrialplex and Wells G&H issue in my district where for 100 years there was chemical dumping, tanneries allowing hides to rot along a river, and it had seeped into the water table.

Now we had an epidemic of leukemias amongst young children within a 6 block radius in Woburn and other diseases as well, and this was without question a tragedy which affected these families just because of where they lived, after the chemical dumping had occurred.

Sometimes we lose site of that. The reason we are doing this is because in many instances the children who live in the area surrounding where the chemical dumping occurred years later begin to contract the diseases related to the chemical dumping that these companies walked away from and then seek to immunize themselves from the responsibility of protecting any further generations of children.

Now it is my understanding that the way the Walker Amendment is drafted that the existing sites if they have not been finalized will be placed underneath the risk assessment one-size-fits-all test which is in the amendment which has just passed the House of Representatives. Is that correct?

Mr. LAWS. That is my understanding.

Mr. MARKEY. So even the sites which have been worked on for 15 years, notwithstanding the delay of Rita Lavelle and Ann Burford and everyone else trying to slow it down, we'll have another layer of delay placed upon it even though it could be entering, which these sites are, their final stages?

Mr. LAWS. Our reading is that if the final recommendation record of decision has not been signed for a particular site, then the provisions of the Walker Amendment would apply.

Mr. MARKEY. And so that would be the case in one of the longest-standing Superfund clean-up actions in the country?

Mr. LAWS. That's correct.

Mr. MARKEY. To further delay the final relief for these families in terms of their certainty with regard to the effect which this site has upon the community.

One of the things that opponents of Superfund argue is that we shouldn't clean up some of these sites but just put a fence around them, even though you still have the contaminants there in the soil.

What do you answer to those that say that just putting a fence around it—I know in Woburn they put a fence around it. That was the initial Rita Lavelle and Ann Burford suggestion, but these boys who are, you know, 8, 10, 12, with their mini-bikes just used to crash right though it and ride around inside of this site, you know, days on end, and it was not a permanent solution whatsoever.

Can you give us your view as to how this fencing, you know, kind of turning each one of these sites into a national industrial production sacrifice zone—to build a fence around it could——

Mr. OXLEY. If the gentleman could have the answer, please.

Mr. MARKEY. I thank the chairman.

Mr. LAWS. First, on the health and environmental level, I don't think putting a fence around it addresses the problem. At many of these sites there has to be some sort of active action by the environmental regulators to make them safe.

On a second level, I fail to see how putting a fence around several thousand sites around the country is going to address the economic criticisms that this program has received as to its impact on sites. If we are having trouble re-developing cleaned up Superfund sites, I fail to see how a community that is surrounded by one or two fenced, contaminated sites where the contamination is still in place is going to have any type of economic vitality.

Mr. MARKEY. I thank you.

Mr. OXLEY. The gentleman's time has expired.

Mr. Upton.

Mr. UPTON. Thank you, Mr. Chairman. Mr. Laws, welcome.

Mr. LAWS. Thank you.

Mr. UPTON. Your office worked very closely with Chairman Oxley and myself this last year trying to achieve a great legislative effort on Superfund, a bill that passed out of this committee 43 to nothing and I was more than heartbroken when we saw the effort stalled in the House last fall, but being heartbroken I guess isn't all that unusual to me, as I am an avowed Cub fan and this button, "Superfund Now"—a little bit faded—sits next to my Ernie Banks baseball from 1969, and as a balanced budget fan, my "108 in 1988" Gramm-Rudman target button I keep in my office.

I'm hoping that I can move this button to a different shelf this year.

As you know, on a more serious topic, your office and my office have been in touch last week with regard to a very serious situation in my home community, that being a warehouse that was discovered with literally thousands of radioactive dials and gauges.

Though they don't pose any immediate danger to folks there as the building is all but abandoned, we would all rest a lot better if they were someplace else.

You are aware of a letter that I sent to your office on Monday. I didn't even have to use my fax machine. You all came by and picked it up. But I wonder if you have any latest development for me that I might share with my people as I prepare to go home tonight for a busy weekend.

Mr. LAWS. Congressman, we received a call from your office last week about that site and called our Region 5 office. It turns out that the State Department of Health had already been to the site and has contacted the Air and Radiation Office in Region 5 to do some monitoring there. When the Superfund people were notified they, of course, got in touch. In the next couple of weeks we will be sending some people from the Emergency Response Division from the region to the site to evaluate it.

At this point, we have not begun any analysis to see whether this is a site that is appropriate for listing. I understand that the State has been involved in certain discussions with the Department of the Army who they believe may have some responsibility for the site. We are just beginning to get involved with the site. We did receive your letter to the Administrator requesting inclusion on the

NPL and we will be following up on that as well, as soon as we get some concrete information about the site.

Mr. UPTON. Thank you.

To follow up on Mr. Tauzin's question with regard to his particular problem of the business in his community that was denied because of really lender problems, as you may know both he and I have sponsored legislation with strong bipartisan support both in this committee as well as in the full House to protect lenders and innocent landowners. Tomorrow in Kalamazoo I will be chairing a Northeast/Midwest Coalition hearing with a number of folks testifying before us tomorrow.

I know you are aware of our bill. I don't know that the EPA has taken a formal position in support of our bill. Last year we were successful in including similar language as part of the bill that passed this committee and I would hope and urge that perhaps we might be able to get the support of the EPA again.

Mr. LAWS. We have not taken a formal position but as you say, we were very pleased with the work that you did last year on that issue that was included in the bill that came out of the Energy and Commerce Committee and we are fully supportive of that effort. When you were working on your legislation last year, there was still some question whether the lender liability rule would survive. Since then, the Supreme Court has decided not to take the case up so in effect we do not have a rule. We do need one.

As I said before, we will be issuing guidance which, in effect, is going to be taking our lender liability rule and putting it forth as the Agency's view on how it will treat lending institutions but, of course, that does not provide the same amount of protection to lending institutions as a rule. So we do need specific legislation.

Mr. UPTON. As a former OMB-er, I know that there is no deputy OMB director. That spot is vacant. From time to time an agency, at least when I was at OMB, would dictate some policy without a thorough review of OMB and so perhaps we will see the same thing happen again.

Mr. OXLEY. The gentleman's time has expired.

The Chair would announce we will plan to yield to the gentlelady from Arkansas for her 5 minutes and then the committee will recess so that we can get a floor vote.

The gentlelady from Arkansas.

Mrs. LINCOLN. Thank you, Mr. Chairman. I would also like unanimous consent to submit an opening statement for the record.

Mr. OXLEY. Without objection.

[The prepared statement of Hon. Blanche Lambert Lincoln follows:]

PREPARED STATEMENT OF HON. BLANCHE LAMBERT LINCOLN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS

Thank you Mr. Chairman for holding this hearing which I hope is the first of many to discuss and debate the future of the Superfund program. I worked closely with you and then Chairman Swift last Congress and I look forward to working with you again to right a terribly troubled program.

Last year, through an unbelievable process, the various interest groups, including manufacturers, chemical companies, small businesses, environmentalists, citizen groups, states, and insurance companies, were able to agree on language that would have reformed the Superfund process. It established fair share allocation of liability, more reasonable remedy selection criteria and active citizen participation. It had

something for everyone. Last year's bill addressed and resolved the horror stories of innocent individuals paying 100 percent of the cleanup costs and cleaning up sites to standards that are unreasonable in terms of the future land uses. Unfortunately, time ran out and we were faced with the disappointing fact that we would have to work on this problem again in the next Congress.

There are many groups out there that are advocating the elimination of retroactive liability. In a perfect world I would fully support such an approach. However, we must face the reality of a limited pool of federal resources and the fact that there are still thousands of contaminated sites yet to be cleaned up. A few options have been mentioned, however, I have difficulty embracing any one of them. Thrusting this program on the States without ample resources would be an unreasonable burden; raising the environmental income tax or other corporate taxes would impose financial responsibilities on small businesses and those companies who did not contribute to the contamination or who would not in the future; granting the Environmental Protection Agency (EPA) with the complete authority for all contamination remediation would add billions to the cost of such clean ups through governmental bureaucracy and delay. Even if EPA were to conduct all cleanups, there is no guarantee that the appropriators would appropriate annually all the funds needed to clean up sites. Like other trust funds, money may be withheld to offset the deficit.

With these barriers ahead of us, I look forward to extensive deliberation of the program's downfalls and the possible solutions. As we investigate the program, I believe we need to keep several goals in mind. We must craft language that will be protective of human health and the environment, we must instill reasonableness in the mandates we impose on industry, and we must examine avenues to get the greatest bang for our buck so that we wisely use our limited resources. I believe that attaining these goals is very possible and I thank the Chairman for moving forward on this important issue.

Mrs. LINCOLN. Thank you.

I apologize for being a bit late this morning and missing the administrator. But we are delighted to have you, Mr. Laws and I appreciate your being here.

I would like to just reflect a little bit on the question that my colleague, Mr. Markey, brought up in terms of the amendment from the risk assessment that was passed earlier in this Congress requiring risk assessments for Federal cleanups when the cost is over $5 million. In terms of what I have in my district, and I know a lot of us have touched on that, I do have one Superfund site that the final remedy selection has not come to a conclusion as well as a former Air Force base and I guess my question would be in terms of the application of that amendment in terms of Federal facilities and the Federal facilities action in terms of Superfund cleanup sites in that regard.

Basically, I guess, what will be the impact of that amendment on some of those sites that have not had remedy selection made or signed into action but really on the Federal facilities in terms of Air Force bases, military bases? What are we looking at?

Mr. LAWS. The amendment was not specific to EPA or to Superfund. Our reading is that it could affect certain RCRA corrective action decisions. It would also affect the Department of Defense and Department of Energy as they make remedial decisions at their particular facilities.

If a military base or the Department of Energy has not yet made a final decision as to what its remedial action is and at that particular site the remedial action is in excess of $5 million I believe the provisions of H.R. 1022 would apply.

Mrs. LINCOLN. So we are looking at a cost then to the taxpayers in terms of what is going to be done in those military bases as well as——

Mr. LAWS. I would think so if, in effect, we get to the end of our decisionmaking process— we have done our analysis and are ready to make a decision and then are kicked into the risk analysis and cost benefit analysis of the overall package. Then, yes, it is going to both lengthen the time before we can actually start doing the work as well as increase the costs.

Mrs. LINCOLN. I was one of the three accelerated bases that was closed within 8 months of the first BRAC announcement, so we are very anxious in terms of being able to get that base into a situation where it is marketable. So we have great concern in that area.

Mr. OXLEY. Would the gentlelady yield just a minute on that point?

Mrs. LINCOLN. Sure.

Mr. OXLEY. It is my understanding from your testimony that you don't do cost/benefit analysis now?

Mr. LAWS. We do a cost effectiveness analysis. We do not do a formal cost/benefit analysis. One of our criteria in making a final decision is the cost effectiveness of the proposed remedy.

Mr. OXLEY. I know we found out in Germany, for example, that some of the bases are closing over there and turned back to the German government or the German citizens. Much smaller cost than our situation in closing bases here. I think that is something we ought to seriously consider in terms of a cost/benefit analysis in these kinds of situations. An awful lot of money for very little gain.

I thank the lady for yielding.

Mrs. LINCOLN. Certainly.

Just to touch on Mr. Upton's point, too, we did work hard on the lender liability portion last time in the Superfund bill that we did successfully get out of here and I would like to see us continuing to work on that. I think that was a good provision. I don't think his bill is identical to what we did last year but we can work further on that. I certainly would encourage you all to help us and work with us on that.

The retroactive liability, I have some concerns about that. I am not sure where I fall on it. But in terms of seeing it repealed, how would this really affect our States? I mean, in the words of my father, you can't get blood from a turnip. It has got to be paid for somewhere and if we are going to look at increasing corporate taxes, if we are going to make the States pay, if we are going to tax small businesses, where is it going to come from? I guess my question would be, in your opinion, how are we going to see the financing mechanism, the financing of the program affecting the States?

Mr. LAWS. That could be a major problem as well. First, about 30 States have patterned their Superfund programs on the Federal Superfund program. They have retroactive liability so they would be put in a very difficult situation if the Federal retroactive liability structure were to be changed.

The States also are required under current law to put a 10 percent match on fund lead cleanups as well as to pay for all operation and maintenance at a site. If there are going to be a certain number of fund lead cleanups, then certainly the requirement of the

State to do the 10 percent State match on those cleanups would increase as well.

Mr. OXLEY. The gentlelady's time has expired. If you could sum up so we could go——

Mr. LAWS. Just a last point, a lot of the discussions are about turning the program completely over to the State. Again, without a funding mechanism, that would put the States in the difficult situation of trying to figure out how they would fund their program as well.

Mrs. LINCOLN. It sounds like a challenge.

Mr. OXLEY. The committee will stand in recess for 10 minutes.

Mr. LAWS. Okay, do you want me to stay? Okay.

[Brief recess.]

Mr. OXLEY. The subcommittee will come back to order and I will recognize the gentleman from Idaho.

Mr. CRAPO. Thank you, Mr. Chairman.

Mr. Laws, while we have a second, I would like to follow up on the questions that we started out with before on the three-city study and bio-availability of lead in children.

I want to follow up and make sure that I have a correct understanding of what we talked about in my first questions, and that is it is my understanding that the Administrator indicated that we do deserve an answer, and do deserve a finalization on that three city study.

Can you give me any better explanation as to what kind of a timeframe we could be looking at?

Mr. LAWS. We were just talking about that during the break, Congressman, and my understanding is that in each of the cities the study was done by a different university using a different methodology, and they apparently have run into difficulty reconciling the methodologies used at the three studies.

Beyond that, I don't know. We will go back and find out what the Office of Research and Development is planning on doing and what timeframe is. At this point we have not been able to reconcile the three studies, and we do not have the study released as of yet.

Mr. CRAPO. It seems to me that at a minimum then each could independently put out its study, and we could let the scientific community in the country evaluate those studies.

Mr. LAWS. That could be an option.

Mr. CRAPO. But I think that it really does a harm to the country and to our resolution of these kinds of issues if that kind of information stays unresolved now for 8 years and continues unresolved.

I would also like to go into the question of the current modeling that you are using. It is my understanding in your July guidance for the Superfund that the IEUBK, and I have the name for that acronym here but I won't try to get into it, is the model upon which clean-up guidance allows the risk manager to consider site-specific information that can be very important in evaluating remediation options.

But from the information that I've seen, but in the specific circumstances that I deal with in Idaho and information that is given to me from others, it appears that there are default values that are used in this model, and if all of those default models are used, then the soil removal down to 400 parts per million is basically required

by the model, and that the opportunity, which is stated to have site specific information, adjust factors in the model, is not always allowed.

And, in fact, in response to a Superfund cost reimbursement case recently, an EPA statement was that the EPA discouraged the changing of GSD values even when the empirical site specific data from a well conducted blood study is available.

I guess my question to you is are we serious about letting site-specific factors guide us in modeling these kinds of issues or are we going to just have a rigid, as the Administrator stated, cookie-cutter type solution, that forces all modeling in the country, regardless of site-specific factors, to follow the one standard?

Mr. LAWS. The whole effort to assess the impact of lead in soil is, of course, very important to us.

We look at lead in soil, and lead paint, other exposures of lead. We've got our soil screening levels, which went out in the proposal last. Basically, all they said is that when you find lead at 400 parts per million, you have to look furthermore and see what is an appropriate clean-up level.

That is not a clean-up level. It is just a screening level where we are supposed to look specifically at the site.

It is a residential clean-up level, so it is inappropriate to use that screening level when we are dealing with a land use that is not going to be residential, so the screening level is extremely limited in its utility.

To answer your question, we are trying to get the best information we can to make our decisions regarding lead contamination. It is an extremely dangerous substance for our children. We have to get a better handle on it.

I think possibly some of the sites you were referring to came along in the pipeline prior to some of the recent guidance that went out. I will have to check and see.

Mr. CRAPO. Can I ask you to provide me with a list of all the sites at which the EPA has used the IEUBK model as well as the previous versions, and then tell me in those circumstances how often the EPA has used its standard default values as opposed to site-specific information to run that model.

Mr. LAWS. Okay.

Mr. CRAPO. I guess I am out of time.

Mr. OXLEY. You are out of time.

Mr. CRAPO. Out of time, out of luck.

Mr. OXLEY. Out of time, out of luck. The gentleman from Ohio.

Mr. GILLMOR. Thank you, Mr. Chairman. Mr. Chairman, Mr. Laws, I have a couple of visual aids.

This is my breakfast cereal, Shredded Wheat, spoon-sized, very healthy, low fat, and I have used this cereal box before because I think it demonstrates some of the problems with the Federal Superfund program.

Under Superfund, parties can be held jointly, strictly, severally, and retroactively liable for any substance that is hazardous that they contributed to the site.

I want to point out that those substances include things in this cereal such as phosphorous, magnesium, zinc and copper, and there is no minimum amount that would exempt a party from liability,

so theoretically, if you dump the contents of this box of Shredded Wheat into a landfill, you could be held liable for the clean-up. I think that is one of the problems with this act.

In order to pursue a couple of questions here, I would like to have staff put up a chart.

Do you have the second chart up?

This chart is based on information from Lois Gold, the University of California at Berkeley. Much of the Superfund response is based on the objective of reducing hypothetical cancer risk to a range between 1 and 10,000 and 1 in a million.

Those numbers are based on an extrapolation from rodent testing.

Ms. Gold does not believe rodent testing through maximum tolerated doses is a valid indictor of the potential of caner at low doses.

However, to illustrate the impact of EPA's assumptions, she notes that many naturally occurring substances in foods have proven to cause cancer in rodents under the maximum tolerated dose approach.

Now, using EPA's methodologies, we can state how much of a particular food is necessary to create a 1 in 10,000 risk of cancer. I think those results are rather interesting.

The chart shows that the upper-bound risk of 1 in 10,000 based on EPA methodologies would come from eating one head of lettuce every 2 years or a beer every 2 years.

In other words, naturally occurring substances in 35 heads of lettuce or 35 beers over a lifetime would create a 1 in 10,000 risk by EPA assumptions.

I guess that causes me to wonder whether or not a salad bar would be a toxic hotspot by using EPA's definition from last year's bills, and whether we really ought to be spending hundreds of thousands or millions of dollars to address those hypothetical risks.

First, I want to ask about EPA's cancer risk numbers. Is it true that the risk numbers are upper-bound numbers and that the equally probable lower-bound is that there is no cancer risks at all from these substances?

Mr. LAWS. I don't believe that is correct, Mr. Gillmor.

You also have to realize that we are not just remediating against cancer risks at these sites. I mean, there are an awful lot of non-cancer risks that we are trying to address.

I mentioned some of them when I was referring to Ms. Furse's question earlier. All of the health impacts, the birth defects that New York, California and New Jersey studies have identified are non-cancer risks, so cancer risk is not the only thing that we are trying to address.

I'm glad you were talking about your Shredded Wheat as an example that was theoretical because, in fact, that is all it is.

We do not go after PRP's for emptying a box of cereal into a landfill.

And, finally, I would like to say that what you are talking about are voluntary harms, and what the Superfund program is dealing with are involuntary harms which are imposed on communities by actions that they did not take and which we have been given the responsibility to try to address.

Mr. OXLEY. The gentleman's time has expired.

Mr. GILLMOR. Thank you, Mr. Chairman.

Mr. OXLEY. The gentleman from California, Mr. Bilbray.

Mr. BILBRAY. Yes. I am very interested in your comments about the risk assessment and the cost effective mandates that we have considered at this committee.

Coming from California where our environmental strategies are required to have these assessments, the 3-year timeline seems very interesting for those of us who have absolutely worked with it, myself, the State Areas Resources Board, and the Hazardous Waste Board.

Don't you all already do these kind of assessments?

Mr. LAWS. Yes.

Mr. BILBRAY. If you already do them, where do they end up in the process?

In other words, you do the assessment now, but you said by requiring you to consider that assessment in the rulemaking, you are going to add 3 years.

Now, it takes 10 years. Some remediation programs take over 10 years. Now, as somebody who has worked with these programs and seen them work for environmental strategies, I am still trying to figure out where you got 3 years based on that assumption especially if you are already doing the baseline work, if not the major portion of it already.

Mr. LAWS. Our understanding is as an initial matter the requirements that we will be directed to follow do not kick in until we have finished all of our studies and then have to make a remedial decision. It is at that point that we have to follow the mandates of H.R. 1022.

It is an extremely complicated process that we have to go through. It allows in numerous instances the opportunity for judicial review, so this is our best estimate. It assumes that once we make our remedy decision we then have to go back and redo the analysis in accordance with H.R. 1022. It is an estimate.

Mr. BILBRAY. I think you sort of preempted it with exactly the fact that you do not have experience in this so you work in a worst-case scenarios that have not been identified. I mean, assumptions that have not been reality in the areas where were have applied that, and the State of California would be a good example.

You know, under the requirement on page 28, paragraph 2, the cost benefit qualifications and the benefits associated with alternative strategies not only are not a threat to the environmental strategies, but actually may be the opening key to avoid the kind of complaints that you are hearing again and again about the absurdity of certain applications, and that alternatives weren't looked at as being much more cost effective and thus more environmentally responsible.

I say this not at somebody who comes from business, but as somebody who comes from an environmental regulatory body where we have, you know, totally redirected our environmental strategy based on this kind of study, and anybody worth their salt in the environmental community would admit that on those instances in California where we did this, it was to the benefit, not only from the clean-up point of view, but from the timeline point of view because we were working more with substance rather than imagery.

Mr. LAWS. I don't necessarily disagree with that, Congressman. I think the approach is to do what we tried to do last year, that is to look at the Superfund law, and to see where we are having problems and address them.

But to take, if I can borrow a term that has been applied to us a lot—a cookie-cutter approach, I would say that regardless of what you have done, once you are ready to make a decision and it is going to cost more than $5 million, to be kicked back into this other process, I don't think is efficient. There is no way that it is not going to take us longer to reach a decision if we have to do it.

Mr. BILBRAY. Well, with the statement in this legislation that increment risk reduction or other benefits of any strategy chosen will be likely to justify and be reasonably related to the increment cost incurred by State, local and tribal governments, the Federal Government and other public agencies, how can you say that that is a cookie-cutter approach?

Mr. LAWS. The cookie-cutter approach would not let us take concepts like that into account as we go along. The appropriate way to address them is as the Superfund process is on-going, as we are doing our studies, as we are doing our analyses, that is where we should do it.

We shouldn't have to go back and look at those things after we have completed all of our studies and we are ready to make a remedial decision and ready to actually start remediating the site. That is not the time for us to go back and do more studies.

One of the criticisms that has been unanimously leveled at this program is that it studies too much. What you've done is put us in a situation where, after we finish our studies, we've got to go back and do more studies.

Mr. BILBRAY. In other words, before we decide what to do we may need to look at how effective what we are going to do is?

Mr. LAWS. What I am saying is that as we are deciding what we are going to do, let's look at how effective it is. That was the approach we tried to use last year, and I am sure that is the approach that we are going to take, to look at Superfund and to decide what is an appropriate way to reform it.

Mr. BILBRAY. But you don't want to——

Mr. OXLEY. The gentleman's time is expired.

Mr. LAWS. I don't think that what we've got now is the way to do it. I think it is going to be time consuming and expensive.

Mr. BILBRAY. Thank you, Mr. Chairman.

Mr. OXLEY. We thank Mr. Laws for being with us as well as Administrator Browner, and look forward to having you back again have.

I would also ask unanimous consent that any written questions be submitted and the record remain open.

Without objection, that is ordered.

We'd simply ask the Administrator and Mr. Laws that the answers be submitted as soon as possible under the circumstances. I know I am still waiting for some written questions we had from last year, but we would appreciate a reasonably prompt response.

Mr. LAWS. Thank you, Mr. Chairman. We will do that, and I will find out about last year's answers as well.

Mr. OXLEY. Welcome our next panel. While the panel is assembling, I would ask unanimous consent that all opening statements be made part of the record at the appropriate place in the record, and that would include the chairman's opening statement.

I think we can move the process along a little better if we do so. With that, it is so ordered.

We would like to welcome our next panel. Mayor, if it is okay we will start with you.

Our first witness is the Honorable Freeman Bosley, Jr., Mayor of St. Louis, representing the U.S. Conference of Mayors.

I know you are not here on behalf of the Rams football team, but we wish you luck.

STATEMENTS OF FREEMAN R. BOSLEY, JR., MAYOR OF ST. LOUIS, ON BEHALF OF U.S. CONFERENCE OF MAYORS; KELVIN R. HERSTAD, PRESIDENT, UNITED TRUCK BODY COMPANY, INC., ON BEHALF OF NATIONAL FEDERATION OF INDEPENDENT BUSINESS; CHARLES W. NEWTON, III, VICE PRESIDENT, ENVIRONMENT AND REGULATORY AFFAIRS, OLIN CORP.; AND DONNA ROSE, ON BEHALF OF CONCERNED CITIZENS OF TRIUMPH

Mr. BOSLEY. I was saying if I was here for the Rams, Mr. Chairman, I would be before the Appropriations Committee, but I don't think there is anything there.

I want to thank you, Mr. Chairman, for allowing us this opportunity.

Two weeks ago I was in your State, had an opportunity to go to Columbus and visit the mall down there. It is a very nice mall. It is similar to the one that we have in St. Louis and I obtained a lot of good idea, and you all should be commended on the fine job that you've done there.

Good morning. Mr. Chairman, members of the subcommittee, I am Freeman Bosley, Jr., Mayor of the city of St. Louis and Co-chair of the U.S. Conference of Mayors, Brownfields Task Force.

My colleague, Mayor Richard Vinroot of Charlotte, North Carolina, serves with me as co-chairman of this task force.

I am appearing on behalf of the U.S. Conference of Mayors which represents more than 1,000 cities nationally with populations over 30,000 people.

It is an honor and a privilege to appear before this committee on behalf of the Nation's mayors and cities.

Before I begin, Mr. Chairman, let me thank Administrator Browner for coming to the U.S. Conference of Mayor's winter meeting this last January to unveil her Agency's Brownfields Agenda.

We believe that the EPA's action agenda to address the barriers to Brownfields' redevelopment is a good first step and we support it, but we also agree with the critics of the Superfund program that Congress never intended to Superfund the Superfund to thwart the redevelopment of land and investment within the Nation's cities.

Unfortunately, Mr. Chairman, Superfund has done just that. We urge this committee to develop legislation on Brownfields' redevelopment that can move forward as part of Superfund reform or on a stand-alone basis to strike down barriers to and provide incentives for the reuse of these properties.

Almost every city, urban or suburban, has a Brownfields story to tell. Last June at the Conference of Mayor's annual meeting in Portland, Oregon, I was amazed when over 200 mayors packed the room to hear about how cities could not attract investment because of the current structure of our liability laws.

These mayors were not just from center cities, but from suburban areas around the country and smaller towns.

Mr. Chairman, we had to finally call off the discussion, but I am here to tell you that we could have stayed in that room all day to tell you about our problems and the frustrations that mayors have in the current system, and that it only provide barriers to the redevelopment of our land and our expansion tax base.

So we are very pleased to testify before you this morning. We look forward to working with the subcommittee throughout the year as you struggle with how to best reform the Superfund program.

Today we have been asked to testify on the issue of Brownfields, and we will limit our remarks to that issue, but let me say that we also are extremely interested in other Superfund reform issues such as limiting the liability for generators and transportation of municipal solid waste, local government owners and operators of Superfund landfills, and making sure that known polluters of sites are required to pay for clean-up as opposed to taxpayers who are not responsible for the pollution.

Mr. Chairman, let me speak to you about my own city, St. Louis, and how the Brownfields issues negatively impact us.

St. Louis, like many other cities around the country, have experienced disinvestment which we now know is collectively referred to as Brownfields. The St. Louis experience is shared by many cities within your districts.

It is the experience and knowledge of mayors that must be incorporated into the discussions with the EPA and other Federal agencies.

Right now there is no way the city can attract businesses to abandoned industrial sites. The existing clean-up standards and related costs exceed the property's value, and there are no compensating incentives.

Federally imposed policies and regulations must be changed to reflect the overwhelming challenge that older industrial cities face and begin the provide the relief and resources we need to meet the challenge of recreating our cities.

At the turn of the century, the city of St. Louis had over 850,000 residents. St. Louisans lived in two and three-story brick homes and apartments built with style, craftsmanship and great beauty.

We are now a city of 370,000 residents. We have lost almost half of our residents and our jobs, but through hard work and reinvestment, we are building our city. However, we are rebuilding within an atmosphere of rules, regulations, opinions, and lack of incentives or resources that make reinvestment nearly impossible.

Let me share with you some of the information.

Mr. OXLEY. Mayor, could you summarize? We are trying to give everybody 5 minutes.

Mr. BOSLEY. I understand. What I've done is we have prepared and included a series of charts and some graphs, but they are in

the packages. What they basically show is the number of people that have left the city of St. Louis in pursuit of better things. We call that the Greenfields.

I would like to cite for you some examples of what it actually costs to convert our inventory. A retail example: most cities have deteriorated commercial districts that impose a blighted effect on adjoining residential neighborhoods. The storefronts that once supplied daily needs of surrounding residents now can no longer compete with the 70,000 square foot grocery stores.

A corner in one of these districts in St. Louis required $850,000 in public funds to assemble and clean and clear a lot so that businesses could invest $1.5 million.

I would love to cite you other examples. One last one would be an industrial site. Cities are made up of 2 to 3-acre sites in city blocks occupied by multiple users.

To give you an example, one site, a 2 to 10-acre site: to prepare it would cost the city of St. Louis in excess of $7 million.

Let me get to some of the recommendations that we have for you so that we cannot prolong this. We want to recommend what we need.

We need Federal policies that control tax laws and environmental clean-up standards and financial resources that ensure our Brownfields can compete with the Greenfields.

The Federal Government: we need to evaluate the real health risks and compare these with costs of remediation. We need the Federal Government to require relocating companies to clean-up abandoned facilities before they can receive building permits and licensing.

We need the Federal Government to work with State and local governments to assess impaction fees on new developments in the Greenfields.

We need the EPA to establish funds that can be used to reclaim sites desired by our users. We need to break down the barriers to Brownfields development created by unnecessary and ill-conceived Federal laws and regulations.

We need to create incentives for companies to reinvest in existing facilities. We need to create safe harbors for investors and financial institutions.

Finally, we need to create sustainable revolving loan funds of the reclamation of abandoned urban properties for protective use.

We ask the Federal Government to work with us. We ask this committee to work with us. We need your support.

[The prepared statement and attachments of Freeman R. Bosley, Jr. follow:]

PREPARED STATEMENT OF FREEMAN R. BOSLEY, JR., ON BEHALF OF THE UNITED STATES CONFERENCE OF MAYORS

Good morning. Mr. Chairman and members of the Subcommittee, I am Freeman Bosley, Mayor of the City of St. Louis, and Co-Chair of The United States Conference of Mayors Brownfields Task Force. My colleague, Mayor Richard Vinroot of Charlotte, North Carolina, serves with me as co-chair of the Task Force. I am appearing on behalf of The United States Conference of Mayors, which represents the more than 1,000 cities nationally with populations over 30,000. It is an honor and privilege to appear before you today on behalf of the nation's mayors and cities.

Before I begin, Mr. Chairman, lot me thank Administrator Browner for coming to The U.S. Conference of Mayors Winter Meeting this last January to unveil her

Agency's brownfields agenda. We believe that the EPA's Action Agenda to address the barriers to brownfield redevelopment is a good first stop and we support it. But we also agree with critics of the Superfund program that Congress never intended Superfund to thwart the redevelopment of land and investment within the nation's cities. Unfortunately, Mr. Chairman, Superfund has done just that. We urge this Committee to develop legislation on brownfields redevelopment that can move forward as part of Superfund reform or on a stand alone basis to strike down barriers to and provide incentive for the reuse of these properties.

Almost every city, urban or suburban, has a brownfield story to tell. Last June, at the Conference of Mayors annual meeting in Portland, Oregon, I was amazed when over 200 mayors packed the room to hear about how cities could not attract investment because of the current structure of our liability laws. These mayors were not just from center cities, but from suburban areas and smaller towns. Mr. Chairman, we had to finally call off the discussion, but I am here to tell you that we could have stayed in that room all afternoon hearing the frustration of mayors about the current system that provides only barriers to the redevelopment of our land and expansion of tax base.

So we are very pleased to testify before you this morning. We look forward to working with the Subcommittee throughout the year as you struggle with how best to reform the Superfund program. Today, we have been asked to testify on the issue of brownfields and we will limit our remarks to that issue, but let me say that we also are extremely interested in other Superfund reform issues such as limiting the liability for generators and transporters of municipal solid waste, local government owners and operators of Superfund landfills, and making sure that known polluters of sites are required to pay for clean ups, as opposed to taxpayers who were not responsible for the pollution.

Mr. Chairman, let me speak to you about my own city, St. Louis, and how the brownfields issue negatively impacts us.

St. Louis, like many other cities, has experienced dramatic disinvestment as a result of the environmental contamination of its industrial sites, commonly known as brownfields. The St. Louis experience is shared by many cities across the nation and within your districts. Right now, there is no way the City of St. Louis can attract businesses to abandoned industrial sites; the existing clean-up standards and related costs exceed the property's value and there are no compensating incentives. Federally imposed policies and regulations must be changed to reflect the overwhelming challenge that older industrial cities face and begin to provide the relief and resources we need to meet the challenge of recreating our cities.

At the turn of the century, St. Louis was a city of 850,000 residents. St. Louisans lived in 2- and 3-story brick homes and apartments built with style, craftsmanship and great beauty. We are now a city of 370,000 residents. We have lost almost half of our residents and jobs. Through hard work and reinvestment, we are rebuilding our city. But our efforts to truly rebuild are stymied by an atmosphere of rules, regulations, opinions and lack of incentives or resources that make reinvestment nearly impossible. Many older cities like St. Louis have been fully built-out, and then abandoned by businesses as population shifted to the suburbs. What was left behind was contaminated property that no one wants to take responsibility for. Today and in the future, suburban and rural areas will find that this phenomenon is not unique to urban areas, and is a pervasive problem in the reuse of nearly all industrial sites. This will be the case as long as greenfields, or virgin land development opportunities, remain available and relatively inexpensive because of existing barriers to brownfield redevelopment. Speaker Gingrich made this point very forcefully when he met with the mayors in January.

The City of St. Louis was built for a 19th to early 20th century society. Residents walked or took public transportation to work, to shop and to relax at one of our 104 parks. When the automobile arrived, the city saw hundreds of gas stations go up, seemingly on every street corner.

Now we are left with the thousands of sites that once were the properties where people lived or worked. These sites must be available to the 21st century City of St. Louis or there will be no St. Louis. When I look at what it costs to reclaim the sites and consolidate them so reuse can become our future, I wonder if large sections of the city will remain a vast wasteland.

Let me share with you the following series of maps that depict the disinvestment within the City of St. Louis. The red dots represent 5,000 people moving and black dots represent 5,000 people added to an area. The maps graphically depict our residents and businesses leaving for the greenfields of the surrounding counties. The 1940-50 map shows how World War II temporarily reversed this trend.

The 1950-80 maps show the results of the federal housing policies, construction of interstate highways, the construction of high density public housing, and the

change from an industrial economy to an information, distribution and retail economy. Federal policies have helped to create disinvestment in cities. At the same time, they prevent the brownfields, which have been polluted, from being reclaimed or neutralized. The next set of graphs show the growth of city owned properties. In 1972, the land reutilization authority law was passed by the State of Missouri and adopted by the City of St. Louis. This law allows for a cost effective procedure for reclaiming tax delinquent property and clearing their titles. The Missouri law has been duplicated in many states with similar disinvestment experiences.

Initially, LRA inventory grew at a dramatic pace due to abandonment prior to passage of LRA law. In the late 1970's and first half of the 1980's, this inventory began to attract reinvestment from individuals, developers and businesses. The return to the city was fueled by high gasoline prices, high interest rates (city property is less expensive), the investment tax credit for historic renovation, and a coming of age of the 60's generation.

By 1987, however, it all came to an abrupt halt. The Tax Reform Act of 1986 eliminated historic tax credits and restricted tax exempt industrial development bonds. Federal policies effectively stopped urban reinvestment through elimination of the UDAG program, imposition of tough environmental regulations affecting asbestos, lead-based paint and other environmental conditions impacting real estate transactions. LRA now owns 38,000,000 square feet in the city which equals 15% of the city's land mass. The agency expects to acquire 600-800 abandoned parcels per year for the foreseeable future. While the LRA owns 15% of the city, at least another third of the privately held city parcels is greatly under utilized because owners and lenders cannot comply with the environmental regulations reinvestment would require. The St. Louis riverfront, the railroads, the turn-of-the-century multistory warehouses and offices all suffer in the present climate.

I would like to share with you the actual costs to convert our inventory into buildable sites. These costs do not consider loss of employment taxes or holding costs prior to demolition.

The brownfields chart shows our current publicly held redevelopment properties. We have calculated the costs to convert each site from abandonment to a site capable of reinvestment, then we compared it to the appraised value. The gap amounts are dramatic—but where do they come from?

This gap is presently filled by the limited available resources from local taxes and block grant funds. Present tax policies, clean up standards and available resources make reinvestment impossible and fuel additional disinvestment. St. Louis has made great strides in economic development, but without a change in regulations, resources or incentives, the number of abandoned and underutilized properties will continue to grow.

I have been asked to calculate the costs to convert all our brownfields into greenfields. Since every demolition, every commercial/industrial sales transaction, every renovation in a city of beautiful turn of the century buildings exceed its market value, the cost *is* the City of St. Louis.

I would like to share with you typical examples of how remediation costs impact the city's ability to redevelop abandoned sites.

Retail example: Most cities have deteriorated commercial districts that impose a blighting effect on adjoining residential neighborhoods. The storefronts that once supplied the daily needs of the surrounding residents now can no longer compete with the 70,000+ square foot grocery stores and the 500,000 to 1 million square foot mall. The users pay insufficient rent to maintain the structures and businesses that attract antisocial behavior—adult bookstores, liquor stores, check cashing services—not establishments that provide a positive front door to neighborhoods. The city's development agencies have worked to turn around our commercial districts. We have success stories with what we call theme districts, but at great costs.

An important corner in one of these districts required $850,000 in public funds to assemble and clean and clear a site so a business could invest $1.5 million. The business employs 20 full time employees, generated $2 million in sales in the first year and is attracting patrons to the retail and eating establishments along this reutilized commercial district, but it cost the city $26.25 per square foot to reclaim this site, whose value is $2.00 per square foot.

I would love to duplicate this kind of investment in 20-25 of our declining neighborhood commercial districts; but cannot with existing federal regulations and lack of resources.

Industrial: Cities are made up of 2-3 acre city blocks, occupied by multiple users. Since businesses no longer build *up* but *out*, cities need to assemble and prepare 2-10 acre ready to build sites if they are going to compete for businesses with the greenfields. No business is going to spend the time and money to do this even if they prefer the hub location of the city.

St. Louis has spent $7,600,000 to assemble a 50 acre industrial park; that translates into $6.00 per square foot for ground valued at $1.50 per square foot. The property has attracted many users, but in the end, no takers, because of the remaining remediation clean-up costs. The first phase of this industrial park filled the 24 acres with six businesses and 664 employees, but this was during the less regulated atmosphere of the late 70's and early 80's.

Office: St. Louis has many architecturally significant vacant buildings; one is a 22 story, 300,000 square foot, 1920 art-deco structure adjacent to St. Louis University and Grand Center, the region's cultural district. The owner, LRA, has determined that it will cost $1.5 million to remove the asbestos. The university would consider renovating this landmark structure, but cannot justify the cleanup costs. It is hard to pay $1.5 million and still have a property with the same value. If we do not attract reinvestment, the city will have to spend $1.5 million on remediation and another $1 million for demolition. The resulting site would have a *value* of $1.50 per square foot but would *cost* $72.30 per square foot.

Gas stations: Gas stations were once installed everywhere; at least it seems like it when you are trying to rebuild a city. LRA has 25 abandoned gas stations it knows about and many yet to be discovered.

Last year, LRA sold a green corner lot to a church so they could build a new structure. The church paid an architect, obtained a $600,000 loan, sold their existing church and at the groundbreaking located leaking underground tanks. LRA has agreed to use its limited resources to cover the $70,000+ remediation costs. The lot was sold to the church for $11,855.00.

Each of these stories can be told over and over again by mayors across the country. There are not enough resources, time and money to completely clean every site before reuse. I am not in favor of undermining the heath of city residents, but I want all regulations and clean-up standards to reflect true health risks based on reuse. I also want incentives that attract investment and give the city a fighting chance to attract jobs for its residents.

As mayor, I must attract businesses, homeowners and jobs to the city. This will not happen if our land costs are higher than anywhere in the region.

So what do we, the mayors of the historic and cultural centers of this great nation, need to help us in our continuous struggle to become self-sufficient. We need:

- Federal policies that control tax laws and environmental clean-up standards and financial resources that ensure our brownfields can be redeveloped. Clean-up standards should reflect the nature of the site's end use, and local governments should be the key decision maker in determining what the long-term end use should be, i.e. industrial, residential, etc.
- The federal government to evaluate the real heath risks and compare these with the costs of remediation.
- The federal government to require relocating companies to clean up abandoned facility before they can receive building permits and licenses.
- The federal government, working with state and local government, to assess impaction fees on new developments in the greenfields that will be used to renovate and update abandoned properties in the brownfields.
- The EPA to establish funds that can be used to reclaim sites desired by new users.
- To break down the barriers to brownfield development created by unnecessary and ill-conceived federal laws and regulations.
- To place as a national priority, the need to create a level playing field for the development of brownfields so that cities may effectively compete in attracting business investment and reinvestment.
- To create incentives for companies to reinvest in existing facilities in urban areas, and to clean-up those facilities they no longer use.
- To create safe harbors for investors and financial institutions, to enable them to secure their investments in brownfields without being subjected to liability for poor contamination.
- And finally, we need to create sustainable, revolving loan funds for the reclamation of abandoned urban properties for productive reuse.

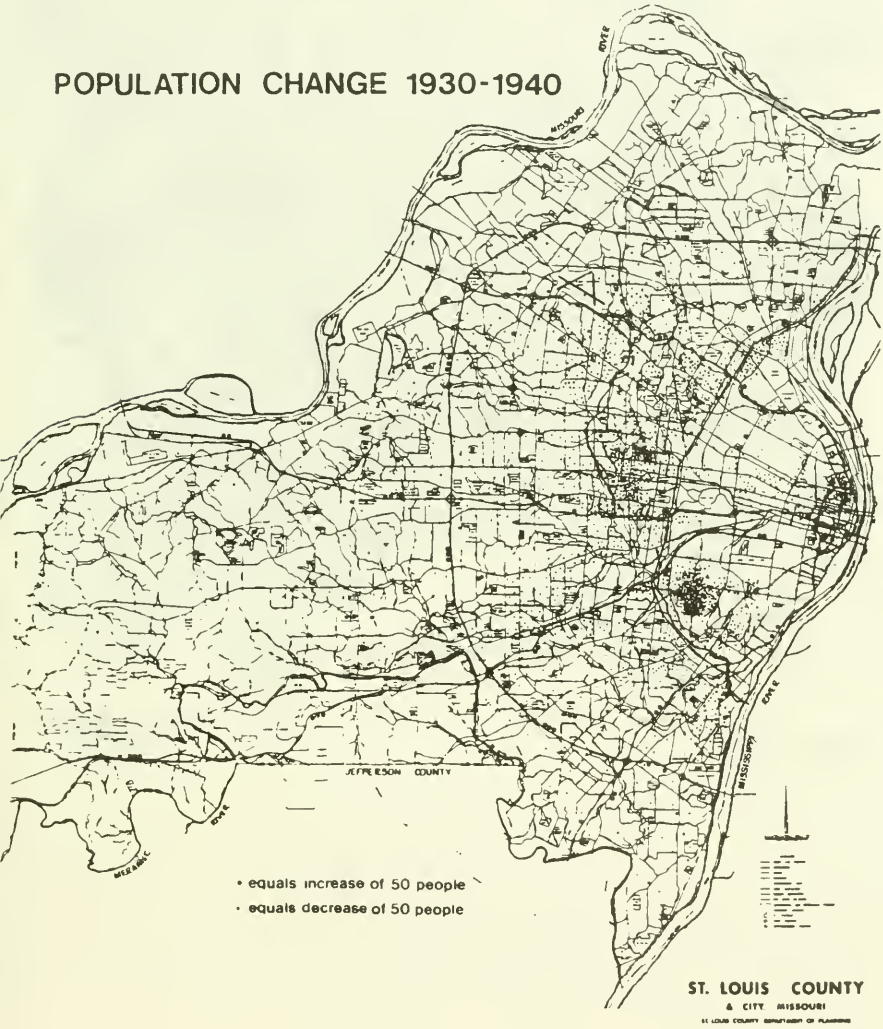
Mr. Chairman, we need a national brownfield redevelopment strategy that includes a variety of tools to bring these properties back to productive, economic life. As my examples have indicated, not all brownfields are alike. Some brownfields can be redeveloped by protecting third party developers and investors from liability. But others, particularly those with significant negative value, will need other tools and incentives to attract private investment.

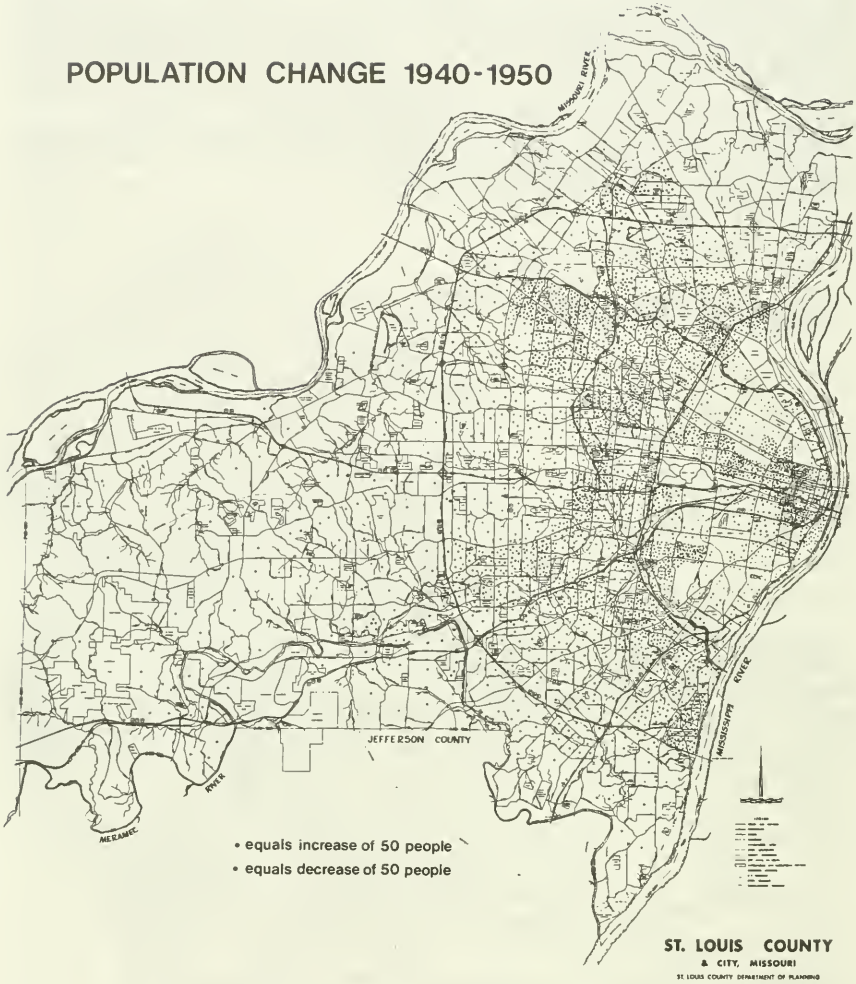
Federal and local government must ease restrictions that make it difficult or undesirable for businesses to reinvest in urban areas—and cure some of the ills plagu-

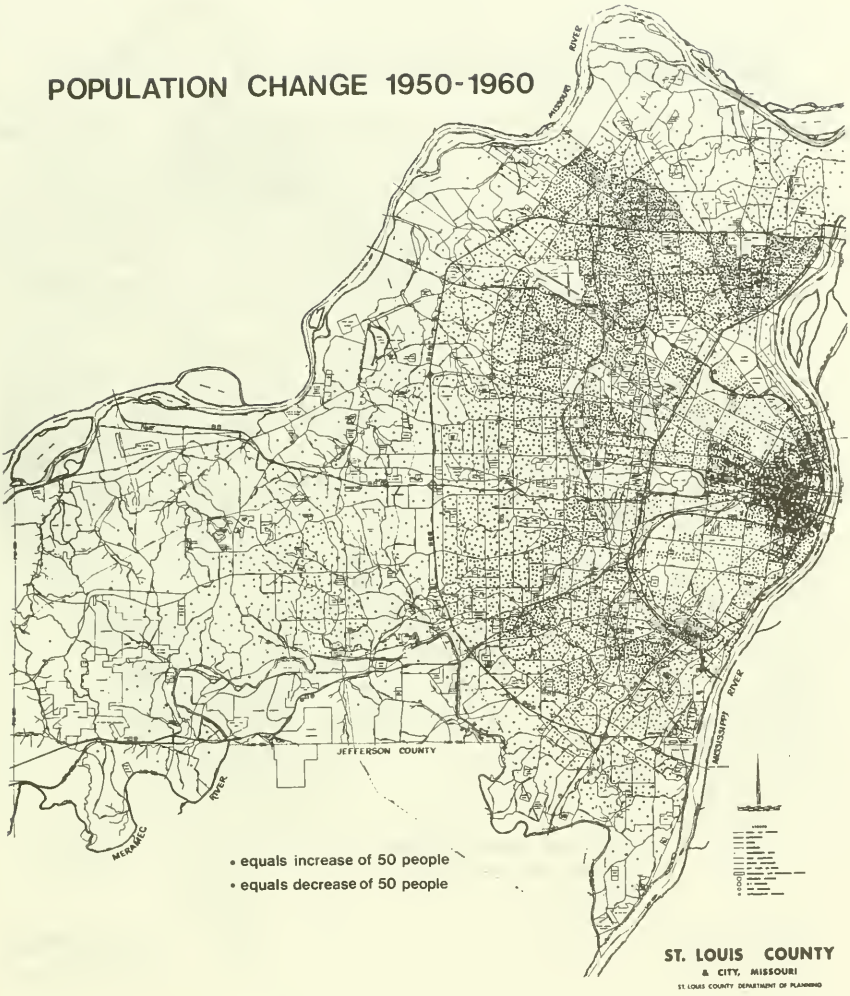
ing our society such as unemployment, economic and racial tension—by returning jobs to the urban core of all our metropolitan areas.

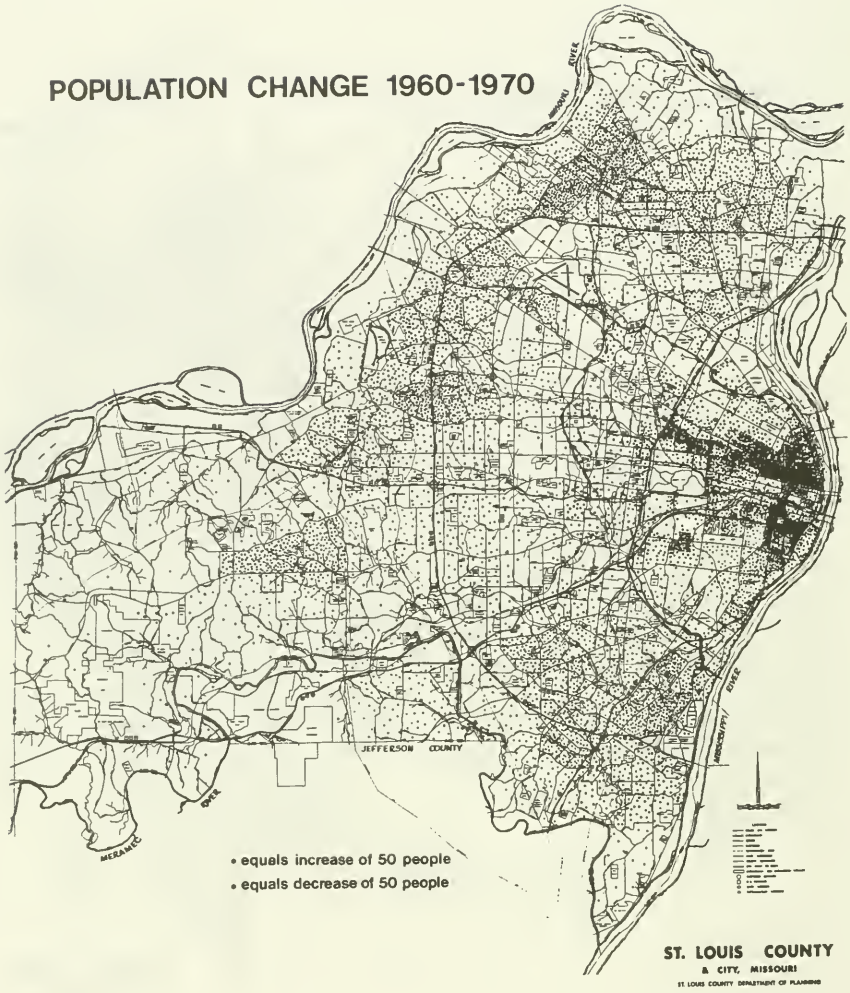
Mr. Chairman, we believe current Superfund resources could be used more effectively not only to clean up polluted sites, but to return them to economically productive reuse for local communities. Today, we have talked about the problem. We will be providing detailed recommendations to you in the coming weeks as our task force completes its work. There has been much national discussion about recycling, preserving our environment, and protecting endangered species.

But unless we, as a society, place more emphasis on recycling our existing industrial sites instead of eating up the greenfields, America's cities **and** older suburbs are at risk of becoming endangered species as well.




POPULATION CHANGE 1940-1950
MISSOURI RIVER
JEFFERSON COUNTY
MISSISSIPPI RIVER
MERAMEC
RIVER
• equals increase of 50 people
• equals decrease of 50 people
ST. LOUIS COUNTY
& CITY, MISSOURI
ST. LOUIS COUNTY DEPARTMENT OF PLANNING


POPULATION CHANGE 1950-1960
MISSOURI RIVER
MISSISSIPPI RIVER
JEFFERSON COUNTY
MERAMEC RIVER
• equals increase of 50 people
• equals decrease of 50 people
ST. LOUIS COUNTY
& CITY, MISSOURI
ST. LOUIS COUNTY DEPARTMENT OF PLANNING


POPULATION CHANGE 1960-1970
MISSOURI RIVER
MISSISSIPPI RIVER
JEFFERSON COUNTY
MERAMEC RIVER
• equals increase of 50 people
• equals decrease of 50 people
ST. LOUIS COUNTY
& CITY, MISSOURI
ST. LOUIS COUNTY DEPARTMENT OF PLANNING

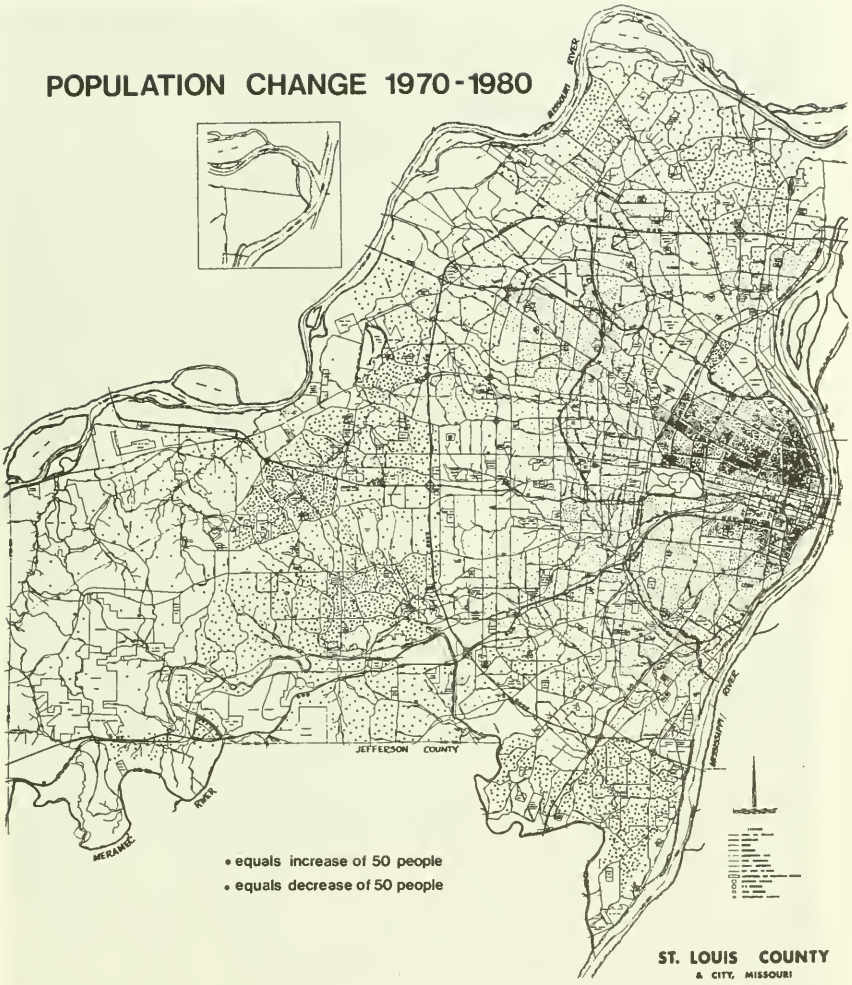
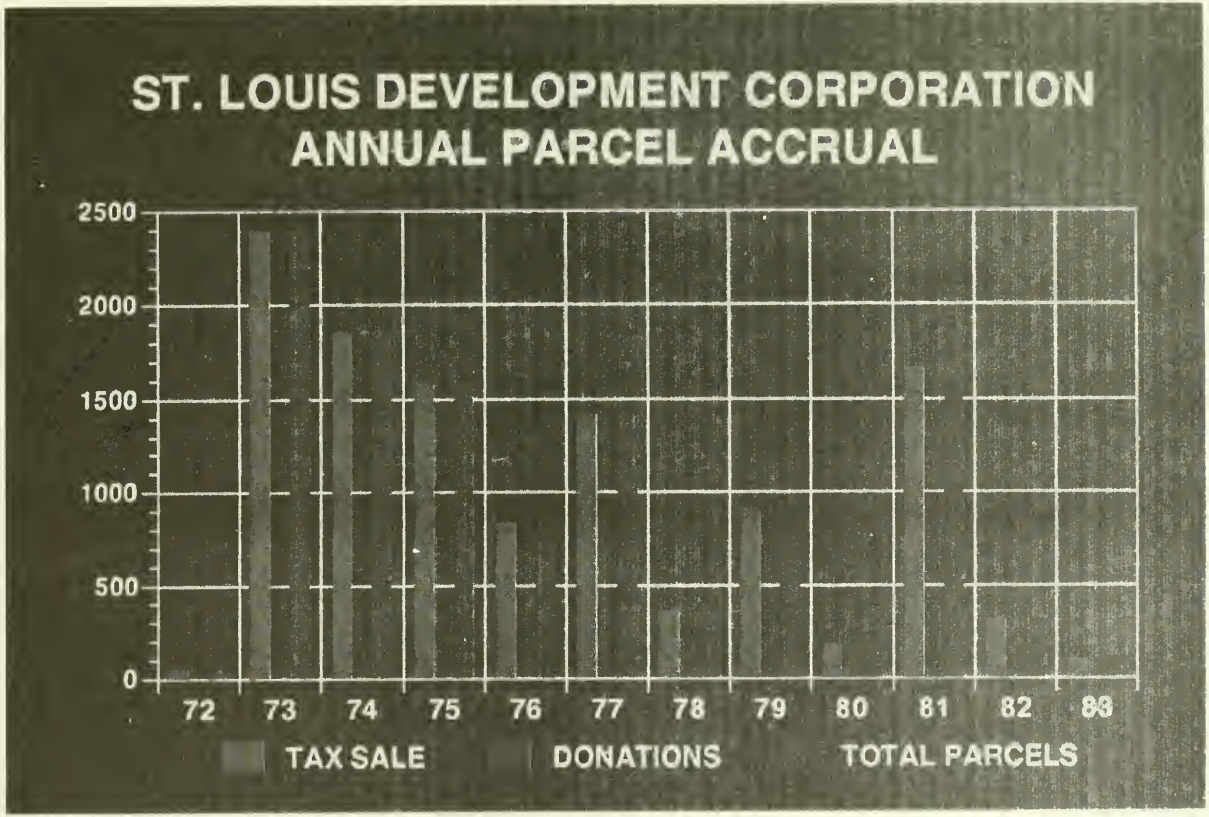
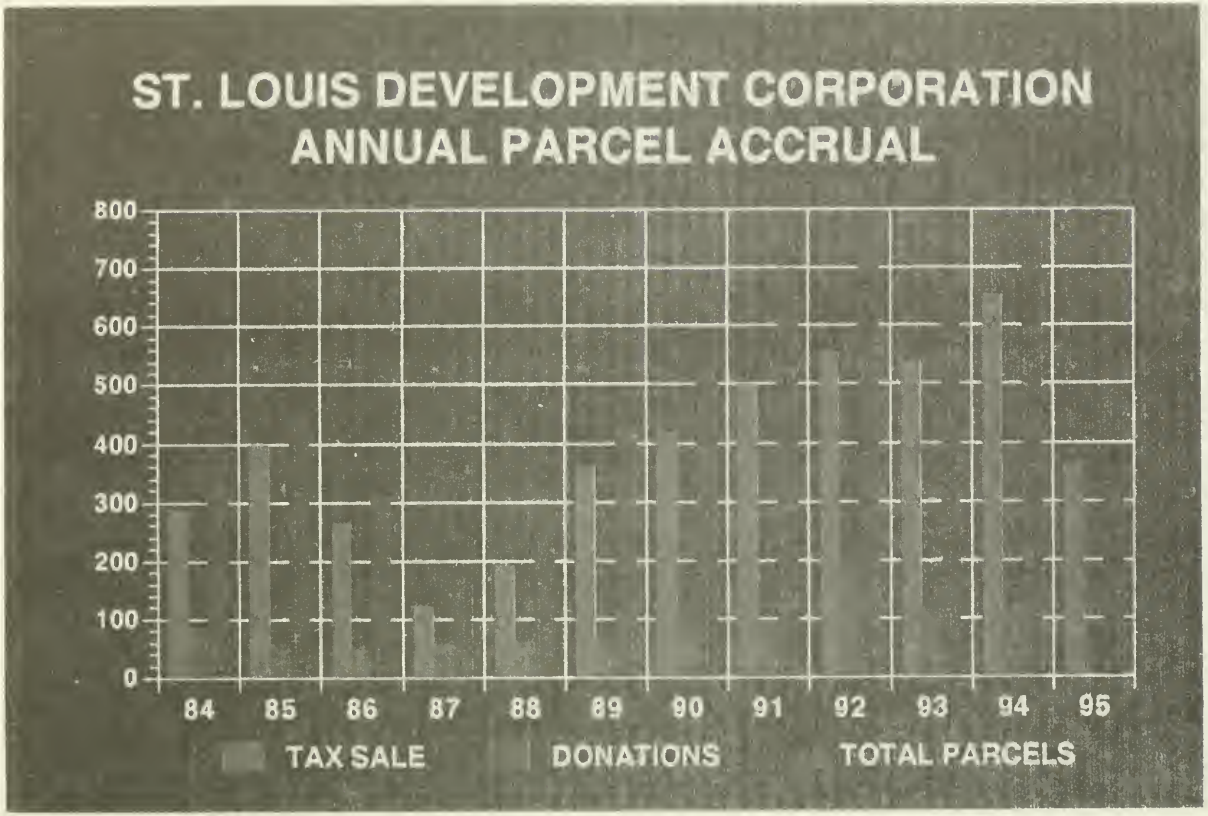

POPULATION CHANGE 1970-1980
MERAMEC RIVER
JEFFERSON COUNTY
MISSISSIPPI RIVER
• equals increase of 50 people
• equals decrease of 50 people
ST. LOUIS COUNTY
& CITY, MISSOURI
ST. LOUIS COUNTY DEPARTMENT OF PLANNING

Exhibit 1

PUBLICALLY HELD PROPERTY WITHIN THE CITY OF ST. LOUIS

	LRA			PIEA			LCRA	
WARDS	BLDGS.	SQ. FOOTAGE	WARDS	BLDGS.	SQ. FOOTAGE	WARDS	BLDGS.	SQ. FOOTAGE
1	85	1,941,360	1	0	317,160	1		
2	105	939,001	2	0	350,660	2		
3	226	3,397,680	3			3		
4	182	3,659,235	4			4		
5	207	590,360	5	6	877,740	5		
6	58	3,079,174	6	8	615,995	6	0	752,876
7	96	1,483,778	7	0	56,550	7	12	618,778
8	78	417,531	8			8		
9	44	291,541	9			9		
10	13	135,829	10			10		
11	16	1,378,575	11			11		
12	1	11,070	12			12		
13	2	18,960	13			13		
14	2	33,016	14			14	0	22,325
15	14	76,302	15			15		
16	0	16,180	16			16		
17	46	543,682	17			17		
18	128	2,887,167	18			18		
19	139	3,810,528	19	0	14,200	19		
20	21	393,155	20			20		
21	37	952,223	21			21		
22	45	3,730,416	22			22	0	54,750
23	0	275,081	23	0	261,951	23		
24	6	84,036	24			24		
25	1	18,460	25			25		
26	74	3,515,768	26	0	506,831	26	3	746,361
	1,626	34,551,308		14	3,001,087		15	2,195,090
TOTALS	1,626	38,006,438		14	3,301,195		15	2,414,599
	NOTE: SQ. FTG. FOR IRREGULAR SHAPED LOTS IS NOT CALCULATED							
	BY THE COMPUTER, 10% OF THE TOTALS HAVE BEEN ADDED TO COMPENSATE.							


ST. LOUIS DEVELOPMENT CORPORATION
ANNUAL PARCEL ACCRUAL
2500
2000
1500
1000
500
0
72
73
74
75
76
77
78
79
80
81
82
83
TAX SALE
DONATIONS
TOTAL PARCELS


ST. LOUIS DEVELOPMENT CORPORATION
ANNUAL PARCEL ACCRUAL
800
700
600
500
400
300
200
100
0
84
85
86
87
88
89
90
91
92
93
94
95
TAX SALE
DONATIONS
TOTAL PARCELS

Mr. OXLEY. Thank you, Mayor.

Our next witness, Mr. Kelvin Herstad, President of United Truck Body, and representing the National Federation of Independent Businesses.

Mr. Herstad.

STATEMENT OF KELVIN R. HERSTAD

Mr. HERSTAD. Thank you, Mr. Chairman and members of the subcommittee for the opportunity to speak to you this morning.

The Administrator this morning said, quote, "Mr. Herstad is not a PRP."

I hope that she meant that United Truck Body Company, the company that I am the principle stockholder of, is not a PRP. If that is true, I would like to thank you very much for the opportunity today, because that is the first official notice from the EPA that I've had that I am not a PRP.

I don't know whether to cry or jump up and down with joy, but thank you very much for the opportunity to hear those words. Hallelujah.

I am not here trying to set forth NFIB policy, but I am a member of NFIB and I am very thankful for that organizations and what it does for me as a small business person in getting the message to you on issues that are important to us small business people.

Individually, we don't have the resources to present our case to Congress individually as large corporations do, so without the NFIB I would feel like a real voice in the wilderness.

I would like to ask the committee if I may—and I don't expect you to answer, but in your mind you might make a mental note—what do you do with your motor oil today? Where does it go? Where did your father's motor oil go? Where did your grandfather's motor oil go?

Well, in Duluth, Minnesota, my father's motor oil, my grandfather's motor oil probably went there to Arrowhead refinery, as did my motor oil as a youth because I went there to have, quote, "a hot oil flash."

When I made that statement to an official of one of the two agencies investigating Arrowhead refinery on the Superfund site, she asked, "What is a hot oil flash?" Then paused, and before I could respond she said, "I don't want to know."

And the reason she probably didn't want to know is that Arrowhead refinery served the public. The public paid for services there and contributed to the cost or to the pollution.

I hear the Administrator say the public shouldn't pay, the responsible party should pay.

The responsible party in many instances is the public. This is a societal thing. And I am not here saying I don't want to have a fair share in the responsibility to clean up; as a member of society, I do, but prior to 1978, society generally contributed to pollution as did businesses individually to one degree or another.

So it is my opinion, when you consider reauthorization, draw a line to where to the rules change and then, prior to the rules, look at these sites more on a societal basis than individually, and let's get on with cleanup instead of paying for attorneys, engineering fees, and all of the other finger pointing that has gone on.

In 1978, I was served with the first subpoena, and I couldn't find out where my name came from. I spent extensive time, money and effort to try to find out how my name was put on the list. During the 9 years that I didn't know whether my name was on or not, they footnoted my financial statement. The CPA's wanted to do that to protect themselves. The bank put me through a lot more hoops to get money. I lost my insurance and had to go on to an assigned risk program that the State of Minnesota has for car dealers at a lot less coverage for a lot more cost, and until today I could not officially say that I wasn't a party to Arrowhead Refinery.

I have one letter from the Minnesota Pollution Control Agency to an insurance company that says "We are no longer a party," but I never heard a response from the EPA. So 9 years later, I am testifying before a subcommittee of Congress and I got the good news. So for that, as well as the opportunity to make my views known, thank you very much.

Thank you, Mr. Chairman and subcommittee.

[The prepared statement of Kelvin R. Herstad follows:]

PREPARED STATEMENT OF KELVIN R. HERSTAD, PRESIDENT/TREASURER, UNITED TRUCK BODY COMPANY, INC.

Arrowhead Refinery Superfund site is a classic example of the best intentions becoming the worst nightmare. It involves the cleanup of several acres of residue from the re-refining of waste motor oil and other waste oil products. Hundreds of businesses and other entities were involved. Eight years have passed since the first investigation started, over 34 million dollars has been spent, or assessed by, the responsible parties, and the clean up has just started. I would like to make the following recommendations as the result of my experience with the Arrowhead Superfund site.

1. Define governmental responsibility—Assign responsibility to either the Environmental Protection Agency (EPA) or some state agency.
2. EPA should be an active participant financially in sites dating back to pre-1980 legislation.
3. Cleanup should be done to minimize health risks, contain a site, and have a goal to reduce health risks to zero.
4. Superfund sites should not be a means for funding EPA.
5. Future liability of responsible parties should not include liability after cleanup.
6. The EPA or any other governmental agency should be responsible for damage caused by entities it licenses to haul, store and dispose hazardous waste, and not the generator.
7. Section 119 of the Superfund Amendments and Reauthorization Act, EPA indemnification for Superfund Contractors, should be retained in the Reauthorization Act.
8. Retroactive liability should be dropped. If it cannot, a Statute of Limitation or Repose should be written into the act.

First of all I'd like to thank you, Chairman Oxley and members of the Subcommittee, for inviting me to testify before you today. On June 4, 1986, I received a letter by certified mail from the United States Environmental Protection Agency, Region 5, Chicago, Illinois stating the Agency was "conducting a remedial investigation and feasibility study at Arrowhead Refinery, Hermantown, Minnesota." My business was one of several hundred businesses and other entities to receive such a letter in the Duluth Area. Thus began a process that covered eight years, cost millions of dollars to litigate, pitted small business against large business, federal agency against state agency, and while the final cost has been estimated and assessed work has barely started on the site in question. There remains serious doubt whether work should ever be done, for many experts feel the site can be contained, monitored, and otherwise left alone because, in their opinion, it causes no harm to the environment or humans around the site.

Arrowhead Refinery operated for years on the edge of Duluth in a township, now a city, called Hermantown. Its principal business was to collect waste motor oil from service stations, governmental agencies, the Air Force, mining companies, utilities and any other generator of motor or hydraulic oil. It often paid large generators for their oil. It refined the oil and sold it back to many of the entities that gave/sold

them the waste oil. This was recycling long before the term and or practice was even thought of. I don't know how far back this company started but I brought my car to its location in 1952 for what was called a "hot oil flush".

The process of refining was to heat the oil, mix it with clay, filter it, separating the clay and impurities from the oil. The company dumped the residue clay containing heavy metals on the back of its property and that residue has now become a hazardous waste site under the Superfund legislation.

The company went out of business some time in the late 1960's. Another company, an oil distribution company, used the warehouse facilities to distribute oil from the site, but did not acquire any of the liability of the site in the process. So, 100 percent of the site clean up fell upon the entities that recycled their oil by giving/selling it to Arrowhead Refinery.

From what I understand there were not many records left over from Arrowhead Refinery so the federal and state agencies looking into the site interviewed a former driver, now up in years, as to where and when he went to pick up waste oil.

Although he delivered as well as picked up oil it didn't seem to matter. If he said he called on your business or entity you were served with the same letter I got. What records were left over from Arrowhead Refinery were in someone's garage. Papers of various types were found. Any person whose name was found in those papers was sent a letter. The burden of proof was not in the laps of the recipients to prove they didn't give/sell oil to Arrowhead Refinery.

That was my case. We deal in school buses and truck equipment.

We generated very little waste oil, and quite frankly, what we did generate, our employees argued over to see which one would be able to take it home and use it as a dust suppressant for their driveway. Our main business with Arrowhead Refinery was to sell them bodies for their trucks that delivered oil products, and buy hydraulic oil to use on the new truck equipment we sold. The letter from the Environmental Protection Agency stated, "Pursuant to statutory provisions," outlined in the letter, "you are hereby requested to submit any and all of the following information, that you may have, concerning the Arrowhead Refinery site, in Hermantown, Minnesota:

1. Copies of all shipping documents or other business documents relating to the transportation, storage, disposal and/or processing of waste materials or substances at or to the above reference site.

2. A detailed description of the generic, common and/or trade name and the chemical composition and character (i.e., liquid, solid, sludge) of the waste material sent by you or by anyone else, to your knowledge, to the above referenced site.

3. For each hazardous substance above, please give the total volume, in gallons for liquids and in cubic meters for solids, which was sent to the site by you or by anyone else to your knowledge. Additionally, list when the substances were sent.

4. What arrangements were made to send hazardous substances to the above referenced site? What type of transportation was used (i.e., tankers, dump trucks, drums)?

5. List the name and addresses of each person or company, which you have reason to believe, generated the hazardous substances which were sent to the site.

6. Copies of all records, including analytical results, safety data sheets, which indicate the chemical composition and/or chemical character of the waste material(s) transported to, stored or disposed of at the above referenced site or offered for transportation to, storage or disposal at the site.

7. A list and description of all liability insurance coverage that is and was carried by you including any self-insurance provisions, that relates to hazardous substances and/or the above referenced site and copies of all of these insurance policies."

I dutifully fulfilled the request as best as I could. I also made an extra copy and deposited it in the lap of a U.S. Senator who happened to be a friend of mine. I accompanied the deposit with the comment, "With friends like you authorizing legislation like this, who needs enemies!"

So the saga of Arrowhead Refinery began. The federal agency in Chicago and Pollution Control Agency in Minnesota were both involved. From what I understand the EPA had assigned the Minnesota Pollution Control Agency with responsibility for all Superfund sites in Minnesota with the exception of one or two sites. Arrowhead has one of these exceptions. What one wanted the other went one better. They both asked for the same documentation. We weren't sure who was controlling the process. Because I had been active in politics I would get calls from various litigants complaining or, in some cases, almost crying wondering what was going to happen.

Sometime during 1986 to 1989 the major contributors formed a group called MASC, an acronym for Minnesota Arrowhead Site Committee, to represent the 30 larger litigants in this matter. The EPA suggested a figure of 60 million dollars to

clean up the site after its technicians studied the site. MASC countered with its own experts and came in considerably lower.

Suddenly, in 1989 the EPA took twelve parties to court, three of whom no longer were in business nor had much in the way of assets. The reason for the sudden action was that the EPA thought the Statute of Limitations would run out at the end of three years if formal action was not commenced. As I understand it, the part that would run out would be the EPA being able to charge its cost to the process. The twelve named moved to delay proceedings and attempted to bring in other parties to the suit. The intent was to at least include the 30 members of MASC.

However, once the motion was to include other parties in the suit, all parties, large and small, found to be contributors through depositions, were included. If the EPA had originally included the members of MASC in its suit that motion would probably not have been made. In my opinion, EPA screwed up and caused a mess for all over the next five years of litigation by hastily filing a suit just to cover its own pocketbook.

The membership in MASC included a large mining company that was charged with 35 percent of the fault, a large municipality 4 percent, and another mine 3 percent. Five agencies of the federal government were next with 2 percent of the fault. (They were the Defense Dept., Post Office, U.S. Army Corp. of Engineers, Coast Guard, and Army Reserve.) The rest of the litigants were found to be 1 percent or less at fault.

During the next five years many hearings, depositions, and court appearances were made. Engineering studies were conducted. A sewer line was run several miles to take water from the site. Site monitoring was installed. Water mains were run to homes adjacent to the site even though no contamination was detected in any wells around the site. All of this was paid for by the members of MASC.

During this time the small litigants were being informed of their potential liability by MASC which was a result of studies it had commissioned. Small business owners worried and wondered if they would survive this ordeal. Two cases illustrate the stress people came under during this process; Mark Johnson of Sonju Motors, Inc., Two Harbors, MN said he was told in one phone conversation with an employee of one of the agencies involved, "Don't worry, we don't want your home or car, we are just after your business." Mark said, "Without the business you can have my home and car because I won't be able to afford either." Jake Hemmerling, an 80 something retired service station owner said he couldn't sleep at night because of what might happen. He said a fellow service station owner, retired, who recently died, and Jake was thoroughly convinced he died worrying about Arrowhead Refinery.

I arranged for car dealers to meet with our local congressman as well as my friend the senator on different occasions. On one occasion, one car dealer and his wife sat with tears in their eyes because they couldn't sell their business because of this matter and they were counting on the proceeds for their retirement.

I could go on and on about what transpired during the eight years of litigation, hearings, and depositions. The point is that there is no reason for something like this to cause eight years of stress on people that have been good citizens and good business people.

The result of the eight years of stress is this: The cost of cleaning up the site has been determined to be 34 million dollars. The EPA agreed to contribute 10 million dollars. However, between four million dollars and six million dollars of this will be paid back to the EPA for its cost of technical support and administrative expense. Thirty-eight major players, including members of MASC agreed to 18 million dollars and others were assessed the remainder. Mark Johnson of Sonju Motors, Inc., was assessed 66 thousand dollars and paid 50 percent more to be released from any future liability. He also joined MASC for a year at a cost of 10 thousand and estimates his legal bills at another 15 thousand dollars. Twenty-seven car dealers paid various amounts with the largest amount being 250 thousand dollars. So far, out of the 34 million four to six million has gone to the EPA; MASC has spent 6.5 million dollars on engineering, water and sewage lines, containment ditches and fencing as well as other costs. These figures do not include the legal fees or the countless hours of time going to hearings and meetings.

And the site has yet to be cleaned up! The estimate for actual clean up is 22.5 million dollars. This is a far cry from the original estimate of the EPA—60 million dollars.

I spent considerable time working on this during the eight years. Part of that time was on my own behalf. I was one of the fortunate ones that was dropped from the list because there wasn't any proof of our involvement or because MASC made a motion to U.S. Judge Paul Magnuson to excuse the very small contributors. The expense I incurred up to that point in legal fees approached 10 thousand dollars. I

spent countless hours going to meetings, phone calls to employees of the EPA and PCA as well as talking to present and former employees of ours about what they could remember about our dealings with the site owner. The rest of the time I tried to get to people that could change this legislation so that it wouldn't be so burdensome. Perhaps this time it will do some good.

I feel very strongly about this and hope you will consider the following recommendations in your deliberation on the reauthorization of the Superfund Legislation.

1. Direct the Environmental Protection Agency to clearly define whether it will oversee a Superfund site or will the state agency in the state in which the site is located. Once this is done only the responsible agency should be involved.

2. It has been stated repeatedly that those that profited from the pollution should be made to clean it up. When a company makes a profit the federal government also profits through the profit tax it assesses business. So an argument can be made that the federal government should pay also. Let's just get off this type of reasoning and realize that when a lot of the pollution was done there wasn't any law or regulation against it. In my opinion, it is wrong to penalize retroactively for mistakes not recognized as mistakes when they were made. The Environmental Protection Agency, through Superfund, should go into each site as a participant up front and not as the last resort. If the 10 million had been offered up front on Arrowhead there would have been a lot less time spent in getting it resolved.

3. Consideration should be made to the benefits vs. risks of identifying a site, and monitoring it. The federal and State agencies involved with Arrowhead attempted to put the site into a 'before pollution' condition. Sites should be studied from a health risk mentality and not from an environmental restoration mentality. Contain a site, determine the risk to health, and have, as a goal, to reduce that risk to zero.

4. It appears to me that the EPA has a mechanism to fund itself through the system of charging a Superfund site for any costs it incurs. In the Arrowhead case MASC could not limit or control the cost of the EPA but had to agree to reimburse the EPA for its cost. Some of those costs were excessive. For instance, EPA officials rented Cadillacs to go from the airport to a hearing less than five miles from the airport.

5. Some consideration should be given to holding parties not involved in the clean up with any future liability once clean up has begun. The government does not want to assume any liability yet wants to control the clean up totally.

6. The EPA is required in Section 119 of the Superfund Amendments and Reauthorization Act to indemnify response action contractors (RACs). I understand the EPA, under new guidelines, will not offer indemnification to new contracts without first attempting to hire contractors not requiring indemnification protection. This will make it almost impossible for anyone but the biggest contractors to do the work. And, in many cases, not even the biggest will get reasonable indemnification policies from the insurance industry. The original Section 119 should be retained in the Reauthorization Act.

7. In order to avoid future problems the government has to assume responsibility in the collection, storage, and disposal of hazardous waste when it licenses people in the business. It seems incomprehensible to me that when a person comes to me with a permit from a federal agency to haul/dispose of hazardous waste that I can still be held liable for that person's action. This is an area that must be corrected.

8. It seems to me that any reauthorization should include consideration of the fact that contributors of waste did it at different times. Retroactive liability is the worst part of Superfund. I believe it should be done away with. This Act reversed our whole tradition of innocent until proven guilty to you're guilty prove otherwise. If total retroactive responsibility cannot be removed from the Act then incorporate some type of Statute of Limitation or Repose that limits liability to a period of time. We have to have some reasonableness to this Act.

Again, thank you for the opportunity to testify.

Mr. OXLEY. Thank you, Mr. Herstad.

Our next witness is Mr. Charles Newton, who is Vice President of Environmental Affairs for the Olin Corporation.

Welcome, Mr. Newton.

STATEMENT OF CHARLES W. NEWTON, III

Mr. NEWTON. Thank you, Mr. Chairman and members of the committee. I appreciate that so many committee members have read my testimony and seem to share some of our concerns. Let me

preface by saying I am a little nervous. I am not a lawyer. I am not a government affairs expert, nor am I a hired gun sent to represent Olin, and I certainly never expected in my entire career to be sitting here before a congressional committee.

I am, however, a line manager with over 30 years of experience in Olin, and the senior employee within their company directly responsible for environmental affairs. I spend close to three-quarters of my time on Superfund type activities. I really appreciate this opportunity to appear before you with an illustration which demonstrates why current policy and practice within Superfund makes my job more difficult and does not lead to decisions in the best public interest.

The Saltville Superfund site is a clear and simple example of several major flaws in EPA's implementation of the Superfund law. Saltville, Virginia, was our birthplace. It was Olin Corporation's first chemical manufacturing facility operated from 1892 until 1972. Since then, as someone mentioned before, we have spent about $20 million on a number of projects that have prevented contamination from leaving the site. Most recently, we have built an advanced water treatment plant to provide protection to a nearby river.

Simultaneously, we were performing under EPA oversight environment and engineering assessment to determine the best long-term remedy for the site. To give you some feel for how thorough this was, the study itself cost $2.5 million. Immediately after accepting our study on January 18, EPA released its proposed plan for long-term remediation. Imagine our shock when this proposed plan recommended alternatives that had not been studied in detail and, in fact, the plan includes several features that we, after EPA review, had earlier eliminated from our assessment as being impractical or unnecessary.

A clear example of this is EPA's remedy for the former chlorine plant site where EPA proposes that we dig up 90,000 tons of mercury contaminated soil and transport it to an incinerator built in Saltville. This site was remediated in 1983 under the oversight of the Commonwealth of Virginia, and part of this work was installation of a clay cap covered by top soil and grass. For the past 12 years, there has been no sign of any deterioration in the cap, monitoring has shown that cap has kept contaminated soil in place, and water quality is well within State standards.

Problems we foresee with this remedy include, first, we break into the cap, excavate that soil, and it is going to expose workers, it is going to expose local residents to mercury emissions.

Second, all of this mercury contaminated dirt, and it is about 10,000 truckloads, have to be transported within close proximity to a residential neighborhood, and then after it is burned and those identical 10,000 truckloads of no incinerated ash will have to be transported back to the site again.

Third, it is not at all clear the incinerate can even be able to do what EPA wants. The biggest state-of-the-art mercury recover device we know of operates at 300 pounds an hour. EPA assumed that we will build an incinerator that will operate at 36,000 pounds per hour. I am an engineer, I really doubt such a huge unit can be built that can operate safely and reliably.

EPA's response to these problems has been to say, those are design details. They will be worked out as we implement the project. The cost of what EPA wants us to do at the former chlorine plants would be enormous. They have estimated costs around $20 million. I have heard that number before. We think it could cost 2, 3, 4, 5 times that amount.

It is clear that EPA is not doing this to eliminate risk. Less drastic alternatives presented in the feasibility study would, by EPA's admission, deal with any potential risk to human health and the environment posed by the former chlorine plant site. We are not adverse to spending money to protect the environment. In fact, we estimate that to do these less drastic, more sensible measures are going to cost us $20 to $30 million. We are prepared to do that.

The real reason EPA wants Olin to dig up and burn 90,000 tons of soil appears to be so that the Agency can say, it has achieved treatment at Saltville. We have had two meetings with the Agency. I participated in one myself, and it appears that treatment is the holy grail at EPA, treatment for treatment's sake seems to be the desired endpoint no matter what the expense.

As the problem with EPA at the plant become obvious, it has engendered overwhelming concern and opposition from everybody including, as you will see, letters from both Virginia's Senators, from Virginia's two highest environmental officials, from the town council and the Mayor of Saltville, and from hundreds of citizens.

Mr. Chairman, members of the committee, that completes my statement, and I will be happy to take any questions.

[The prepared statement and attachments of Charles W. Newton, III follow.]

PREPARED STATEMENT OF CHARLES W. NEWTON, III, VICE PRESIDENT FOR ENVIRONMENT AND REGULATORY AFFAIRS, OLIN CORPORATION

Thank you, Mr. Chairman, and Members of the Committee. My name is Chuck Newton. I am Olin Corporation's Vice President for Environment and Regulatory Affairs.

I am here today to talk about three major flaws in EPA's implementation of the Superfund law.

First, EPA's penchant for choosing treatment for treatment's sake often leads to the selection of inappropriate remedies, sometimes resulting in increased risks to the community and the environment.

Second, EPA continues to impose cleanup requirements that cost millions of dollars more than necessary and which do not protect the citizens or the environment beyond remedies costing half the price.

Third, EPA continues to select remedies which defy logic and do not make common sense.

Those flaws are illustrated by EPA's actions at a Superfund site in Saltville, Virginia, where EPA recently proposed a remedial action consisting of excavation of several acres of a former industrial plant site, followed by incineration of the excavated soil in a high temperature thermal treatment device.

In reaching this decision, EPA evidently did not consider the adverse impact upon the community of incinerating soil containing mercury, nor did EPA adequately consider the comparable risks and benefits of alternative approaches to remediating the site.

There are other alternatives that offer equal protection of the environment, that will consume fewer resources, and that will actually reduce risk to the people of Saltville. Indeed, the community has already expressed strong opposition to EPA's proposed remedy, as has the Commonwealth of Virginia.

What has apparently driven EPA in its selection of the remedy is a belief that treatment for treatment's sake is desirable. This does not-seem to recognize what the Administration now says is its "common sense" initiative. In fact, what is being

proposed for the cleanup at Saltville does not make common sense at all. I will explain why in more detail as I continue my remarks.

The Saltville Site was formerly occupied by Olin Corporation's first chemical manufacturing facility. Olin conducted operations there from 1892 until 1972. Manufacturing processes resulted in mercury contamination at several locations on the site. Because of that contamination, and because there is a river nearby, the site has been studied extensively over the last 20 years—by Olin, by EPA and other Federal organizations, and by the Commonwealth of Virginia. Cooperation between Olin and those agencies has been good over the years.

We have worked with EPA and Virginia officials, and have conducted several remediation projects in the interest of preventing mercury from migrating from the site into the environment. We have installed advanced water treatment equipment to protect the river. So far, we have spent about $20 million on such projects. Also, during the past five years, we have worked closely with EPA in performing an environmental and engineering assessment to determine the best long-term remedy for the site. We have spent about $2.5 million on that effort alone.

In preparing the report on our assessment, we analyzed numerous potential remedial alternatives. The final report was completed and accepted by EPA in January of this year. It includes a series of alternatives that were agreed upon earlier with EPA staff. Within the range of alternatives is a set that Olin Corporation believes would be proper to implement, even though it would cost us $20 to $30 million. That set of alternatives would be protective of human health and the environment.

On January 18, EPA released its Proposed Plan for remediating the site. Much to our surprise and dismay the Proposed Plan recommended alternatives that had not been studied in detail as EPA's regulations require, and included several features that Olin, with EPA's acquiescence, had earlier eliminated as being impractical or unnecessary.

One specific feature of EPA's Plan, the solution proposed for the location that formerly held the Chlorine Plant, is particularly problematic. EPA, without prior detailed study, calls for excavating large quantities of soil and incinerating it in a high temperature thermal treatment device. EPA has proposed a remedy that could unnecessarily expose the local community and the environment to mercury, an well as to hazards posed by increased heavy truck traffic through the area. The remedy is drastic, would be incredibly expensive, would be risky to implement, and would not provide significantly more human health and environmental protection in the long-term than other available, more practical alternatives.

Before giving you more details on EPA's Proposed Plan, and to put the Plan in its proper perspective, I would like to tell you a little of the history of the Former Chlorine Plant Site.

After manufacturing operations ceased in 1971, Olin demolished the Chlorine Plant, decontaminating the manufacturing equipment and appropriately disposing of it on the site. In 1983, under the oversight of the Commonwealth of Virginia, Olin excavated mercury contaminated sediment from the river next to the Former Chlorine Plant Site, wrapped that sediment in a large hypalon bag, and buried it at the Former Chlorine Plant Site. An impervious clay cap covered by topsoil and grass was installed on the site, and the cap was graded and contoured, to shed precipitation away from the site.

In the twelve years since the project was implemented, there has been no sign of any deterioration in the clay cap over the site. Monitoring has shown that the cap has kept the contaminated soil in place, and has protected water quality so that it is well within governing standards.

Notwithstanding that evidence, EPA has decided to not leave well enough alone, and has instead proposed an ill-considered remedy. What EPA wants Olin to do is to dig up the Former Chlorine Plant Site, approximately 2½ acres in size, to a depth of 15 feet. Olin would then transport over 90,000 tons of mercury-containing soil to one or more incinerators, or thermal treatment devices, which would be built elsewhere on the Saltville Site. The soil would then be burned in those incinerators to capture the mercury which would be driven off as vapor. We estimate that transporting the soil would require 10,000 dump truck loads being moved to and from the incinerator.

Because EPA developed this alternative on its own and apart from the assessment process that Olin has conducted over the last five years, it has not been subjected to the detailed analysis that is required by EPA's own regulations. Its feasibility, practicability, and safety are highly questionable.

Problems we foresee with EPA's proposed remedy include:

- First, breaking into the cap and excavating mercury-contaminated soil will expose workers and local residents to mercury emissions.

- Second, some of the mercury is metallic mercury, and there is a good chance that in the excavation process, as the ground is disturbed, metallic mercury will simply burrow deeper, down to bedrock, where it might spread laterally—perhaps even to the river. If you have ever broken open a thermometer, you know first hand the properties of metallic mercury and how difficult it can be to capture.
- Third, because the Former Chlorine Plant Site is not a part of, nor is it contiguous to, the remainder of the site, all of this mercury-contaminated dirt might have to be transported on public roads through a residential neighborhood. There would be obvious traffic risks, and there would be possibilities of spills of mercury-contaminated soil.
- Fourth, it is not clear that there is sufficient space on the Saltville Site to construct this incinerator. Most of the site is occupied by former waste lagoons containing material of inadequate structural strength to support an incinerator. EPA has made a fundamental mistake in its calculations by assuming that an incinerator of this type could be built in a 10,000 square foot area, or about one-quarter of an acre. Based on our experience at hazardous waste sites, we know that at least three acres will be necessary.
- Fifth, it is not at all clear that an incinerator can even be built to meet the performance specifications that EPA has assumed. The largest state of the art mercury recovery device that we know of is one we operate elsewhere. That unit operates at 300 pounds per hour. EPA has assumed that we will build an incinerator in Saltville that will operate at 18 tons per hour. Nobody knows whether such a huge unit can be built to operate safely and reliably. We doubt it. If it cannot be built, we will be left with the option of building multiple smaller units or running one unit for eighteen to twenty years.
- Sixth, because of the nature of the incineration process, the possibility that mercury vapors will escape from the incinerator into the environment is a concern. At Saltville, EPA wants us to construct a transportable mercury incinerator much larger than any presently existing, in extremely limited space, on an uncertain foundation, in a river valley. The danger of releases of mercury vapors will be significantly magnified by all of those factors.
- Finally, after all the dirt has been incinerated, if in fact that point can ever be reached with known technology, the incinerator ash will be returned to the Former Chlorine Plant Site and reburied. That means another 10,000 truck loads of material going over the road, because when dirt is incinerated, an approximately equal amount of material comes out at the other end of the incinerator.

EPA's Proposed Plan simply does not reflect the detailed analysis needed to consider these complexities and risks. The Agency does not appear to have thought them through. When we ask EPA about the risks of mercury exposure, or the infeasibility of building such an incinerator, or the lack of space in which to build it, the response has been "Those are design details. They can be worked out as the project is implemented." We have received that response even though EPA's own regulations, as contained in the National Contingency Plan, say that during the study phase, before proposing a remedial plan, EPA is supposed to evaluate the "technical difficulties and unknowns associated with the construction and operation" of a proposed technology.

The cost of what EPA wants us to do at the Former Chlorine Plant Site would be enormous. The Agency has estimated that it would cost around $19 million'. We think that is a gross underestimate. If it can be done at all, it might cost two, three, or more times that. I should note that Olin is not adverse to spending money to protect the environment. At other locations on the site, we have committed to implement certain features of EPA's proposals. In total, we estimate that implementing the sensible features of EPA's Plan will cost us $20 to $30 million. we are willing to spend that money because it will be beneficial to the citizens and the environment in the Saltville area. It will eliminate the risk of mercury contamination spreading to the environment.

The obvious questions are: Why has EPA chosen this remedy? What does the Agency hope to gain? The answers are not clear from the Proposed Plan.

It is clear that EPA is not doing this to eliminate risk. Much less draconian alternatives presented in the report on our assessment would, by EPA's admission, deal with any potential risks to human health and the environment posed by the Former Chlorine Plant Site.

EPA might be doing it in the interests of future development of the site. Statements in the Proposed Plan lead one to believe that could be the case. Accepting the Agency's cost estimates, which we believe are significantly underestimated, means that Olin would be developing a 2.5 acre piece of ground in the hills of Vir-

ginia for $8 million per acre. That is expensive real estate. It is totally contrary to common sense to spend these vast sums of money to make dirt fifteen feet deep safe for human exposure, when people will never be exposed to it.

The real reason EPA wants Olin to dig up 90,000 tons of mercury-contaminated soil and then incinerate that soil appears to be so that the Agency can say it has achieved permanent "treatment" at Saltville. It is clear from two meetings we have had with the Agency—meetings that have been documented for the public record—that "treatment" is the "holy grail" at EPA. Whether necessary or not; whether posing larger risks in the short-term than are being eliminated in the long-term; and no matter what the expense, treatment for treatment's sake seems to be the desired endpoint.

It may look to you like this is just another case of a corporation resisting what EPA wants done because it will cost money. To counter that impression, I would like to bring to the attention of the Committee the fact that EPA's Plan has engendered significant concern and opposition from the citizens and elected officials of Saltville, as its problems have become obvious. The people of Saltville do not understand why their community should be subjected to the kind of disruption and stigma that EPA's proposal will bring when there is no evidence to justify that proposal. The concerns and opposition of the citizens have also been voiced by officials of the Commonwealth of Virginia, in formal comments to EPA.

Included as attachments to my statement are letters from Ms. Becky Norton Dunlop, Virginia's Secretary of Natural Resources, and Mr. Peter W. Schmidt, Virginia's Director of the Department of Environmental Quality. It is clear from those letters that the Commonwealth of Virginia officially views EPA's Plan as seriously flawed. Mr. Schmidt has said that Virginia's Department of Water Quality disagrees with the Proposed Plan for the Former Chlorine Plant Site. To quote Mr. Schmidt, "the risk assessment concludes that human or ecological receptors are currently not subject to an unacceptable risk at the FCPS from contact or ingestion of mercury."

Also included are letters to EPA from the Town Council and Mayor of Saltville. Those letters make clear the opposition of those local officials to EPA's idea of excavating and incinerating mercury-contaminated soil, and of subjecting the citizens and the environment of Saltville to the risks of exposure to mercury.

Finally, I have also attached examples of Saltville area press coverage of EPA's Plan. Included is an editorial from a Saltville newspaper opposing EPA's Plan and supporting alternatives favored by Olin. Also included is an article saying that 382 citizens of Saltville have signed a petition to EPA in opposition to the Plan. In that regard, Mr. Chairman, I can say to you that the feedback we have heard from the citizens of Saltville has been overwhelmingly opposed to EPA's Plan. People are not saying to us, nor to the best of our knowledge are they saying to EPA, that they think EPA's Plan is a good one. That view seems to be restricted to the EPA staff who produced the Plan, and who are determined to achieve "treatment" at Saltville, no matter how little sense it makes.

Mr. Chairman, Members of the Committee, that completes my prepared statement. I would be happy to take any questions you might have.

EPA Urged to Take a Second Look

[From Saltville News Messenger, February 19, 1995]

The Saltville Superfund Waste Disposal Site has to be cleaned up. Nobody is arguing with that. Regrettably, how it will be accomplished has become more of an issue than what is really at stake. The protection of human life and the environment from further impact from the mercury contamination is the ultimate goal.

Both the United States Environmental Protection Agency and Olin Corporation, the company responsible for the pollution, agree on that. It would seem then that the major obstacle has been overcome. That may not be the case, as the two parties spend the next few months—or longer—arguing back and forth on the best route to reach the destination.

Digging up 90,000 tons of soil from the former chlorine plant site, trucking it through Saltville, burning the mercury out of it, and then trucking it back to the site seems a little overzealous. The site was capped over 12 years ago using clay, topsoil, and grass. The material under the cap needs to be left undisturbed. Neither EPA or Olin tests of the site show evidence that the mercury is going anywhere. The risks of digging it all up again are not worth taking.

On January 18, EPA presented its road map outlining several alternative routes for the second phase of the cleanup. For the first time since the site was placed on the National Superfund Priorities List in 1983, Olin balked at EPA's preferred route.

Olin and its consultants have spent the last five years and over $2.5 million studying and evaluating the Saltville site—all under the watchful eye of EPA. All of the reports, including the feasibility study, were developed and evaluated, their likely costs calculated, their ability to solve the problems at the site considered, and their pros and cons weighed with input from EPA.

Olin is asking us to imagine their surprise when the proposal published by EPA included preferred alternatives that were not included in the feasibility study and that were thrown out early in the negotiating process. We can imagine. A project the company thought they could do for less than $22 million is going to cost over $46 million ($57 million to $60 million when operating costs are factored in) if EPA's directions are followed.

But it isn't just about money. Not only is EPA's plan the most expensive, it also is the one that will be the most disruptive to the community and has the most potential for exposing people and the environment to the mercury when they wouldn't be otherwise.

Both Olin and EPA support the construction of a cap over Pond 5, which would prevent rain from running through the waste in the pond and carrying mercury with it. They disagree on the type of cap needed. Again Olin's argument makes sense. The cap proposed by EPA would be too heavy on the spongy muck of the pond. The weight of two feet of clay over 75 acres would settle and squeeze the water out of the pond like a weight on a wet sponge. Cracks will develop in the clay and it will leak, virtually washing away the $10 million spent to resolve the problem.

Both Olin and EPA also support covering Pond 6 with soil planted with grass. Olin again disagrees with EPA's proposal of an expensive cap over the area where demolition debris from the former chlorine plant site is buried. The debris has been in the pond for 22 years. Both EPA and Olin samples from the outfall have seldom shown mercury.

Perhaps the biggest argument Olin has going for it is $3.5 million wastewater treatment plant constructed this past summer. Since the plant was constructed, no water from Pond 5, which is the pond contaminated with mercury, goes into the North Fork of the Hoiston River. Water samples collected from Pond 6 for over 20 years have never shown significant mercury content. Nonetheless, Olin is willing to hook this pond to the wastewater treatment facility.

Olin has never shirked its responsibility for cleaning up the Superfund site and is not trying to do so now. The alternatives the company has chosen are among those listed in EPA's plan as also being viable. They are just not the ones preferred by EPA.

It doesn't need to come down to a shouting match over costs. Cheaper isn't always better, but what Olin is proposing is not cheap. It is the most cost-effective way to get the job done and still protect the environment and the public health.

Since EPA shares the same goals, we encourage them to take a second look at Olin's proposal. It is the most sensible route to go.

Citizens Petition EPA

[From Saltville News Messenger, March 10, 1995]

A petition with 382 signatures is being sent to the Environmental Protection Agency and legislators supporting Olin Corp.'s pleas over EPA's for mercury cleanup in Saltville.

The petition, addressed to Russell Fish, remedial project manager of Saltville Waste Ponds Disposal Superfund Site, reads "We the citizens of Saltville, Virginia, and the surrounding areas are signing this petition in opposition to EPA's plans to correct No. 5 and No. 6 waste ponds and former Chlorine Plant site. We prefer Olin's alternative plans."

Carl Slate of Saltville, a former supervisor at Olin Corp.'s Saltville plant, circulated the petition. Slate believes Olin has a cleanup plan much less costly than the EPA's plan as stated in the petition.

The EPA's proposal for cleanup at this site of the former chlorine plant and two waste disposal ponds (Ponds 5 and 6) is estimated by the EPA to cost $57 million to $60 million. In a letter to the citizens of Saltville, Olin said it had a better plan that could be carried out at half the expense.

Although he circulated the petition favoring Olin's plans, Slate said, "Actually, they don't need to spend any money."

Slate retired from Olin in 1972, the year the company shut down its mercury-cell chlorine manufacturing plant in Saltville. He worked for Olin 31 years.

He believes the Olin property should be taken off the federal Superfund list. Measures taken at the site 12 years ago to contain mercury complied with EPA and state guidelines, he said.

Fish said obstainment "leaves a problem in place."

"We certainly believe that we need to look at permanent solutions," Fish said when called Tuesday for a reaction to the petition. He emphasized that EPA has made only a proposal ("There have been no decisions made to this point.") and that the cost figures are "very preliminary." The $57 million to $60 million estimate, he said, includes initial capital costs plus operation and maintenance costs over 30 years.

Fish said Tuesday he had not previously heard about the petition. "We want to be sure the people in the community have every opportunity to talk with EPA on the preferred alternative," he said.

A comment period on the plan is open until March 20, and EPA representatives were scheduled to be in Saltville on Wednesday and Thursday, March 15 and 16, to meet with individuals and small groups.

"What we're really seeing is the process at work," Fish said. He said EPA encourages citizens to express concerns, and the petition is evidence that is being done.

The proposal under discussion is the second phase of the cleanup project. The first phase was construction of a wastewater treatment plant and a surface water diversion ditch by Olin.

Under EPA's proposal for the second phase, Olin would construct a facility that would use a burning process to remove mercury from soil. The proposal calls for excavating four acres to a depth of as much as 15 feet and transporting the soil by truck to the facility. The proposed facility could burn 18 tons of soil per hour. Olin says it is concerned with the safety of burning such vast amounts of soil and believes costs may be underestimated.

Olin prefers an alternative that would upgrade the cap of clay, topsoil, and grass placed on the site 12 years ago and upgrade groundwater controls.

COMMONWEALTH OF VIRGINIA,
OFFICE OF THE GOVERNOR,
February 27, 1995.

Mr. Peter Kostmayer
Regional Administrator
EPA Region III
841 Chestnut Building
Philadelphia, Pennsylvania

Re: Saltville Waste Disposal NPL Site

DEAR MR. KOSTMAYER: This is in regard to the Proposed Remedial Action Plan issued by EPA Region III for the Saltville Waste Disposal site. It is my understanding that many elements of this proposal do not recognize the findings of an extensive site investigation and feasibility study undertaken by Olin Corporation with the consent and supervision of EPA and the Virginia Department of Environmental Quality (VDEQ).

The Commonwealth of Virginia is particularly concerned with elements of the EPA proposal regarding the excavation and treatment of waste in the former chlor-alkali plant area. I have asked the VDEQ technical staff to prepare technical comments on the EPA proposal and to submit the comments to EPA during the extended public comment period. In addition, it appears that the negative impact of this remedy on the community may warrant further evaluation.

It is also my understanding that Olin Corporation has proposed alternatives for cleaning up the site that would achieve essentially the same level of protectiveness at much less cost. I urge you to consider seriously the selection of a final remedy for this site that is rational, scientifically sound and cost effective.

Thank you for your attention to this important matter.

Sincerely,

BECKY NORTON DUNLOP, *Secretary of Natural Resources.*

COMMONWEALTH OF VIRGINIA,
DEPARTMENT OF ENVIRONMENTAL QUALITY,
March 8, 1995.

Mr. Abraham Ferdas
Hazardous Waste Management Division (3HW02)
U.S. EPA, Region III
841 Chestnut Building
Philadelphia, PA

RE: Saltville Waste Disposal Superfund Site: Proposed Remedial Action Plan

DEAR MR. FERDAS: The Virginia Department of Environmental Quality (VDEQ) has completed its technical review of the Proposed Remedial Action plan for the Saltville Waste Disposal Superfund site. I am submitting the attached comments to you for your consideration. VDEQ is concerned about the stringent features of the preferred remedial alternative that may not necessarily result in increased overall protection of human health and the environment.

VDEQ agrees with the proposed remedial alternative for Pond 5 with the exception that the specifications for the cap to be installed over the pond should be determined during engineering design. Only the performance standards to be met should be specified at this time.

VDEQ agrees with the proposed remedial alternative for Pond 6 with two exceptions. First, the requirement to install a containment structure and a RCRA cap around and over the Former Chlorine Plant Site (FCPS) debris is not warranted at this time. The waste appears to be well contained by the existing dike structures and should not be disturbed. This action would not result in additional reduction in risk posed by Pond 6 waste to human health and the environment.

VDEQ disagrees with the proposed remedial alternative for the FCPS. The risk assessment concludes that human or ecological receptors are currently not subject to an unacceptable risk at the FCPS from contact or ingestion of mercury. The FCPS has been capped and revegetated. We propose that monitoring of FCPS groundwater should continue and additional monitoring wells could be installed. Groundwater controls could also be implemented to provide added reduction of the potential for mercury migration to the river.

This site is an excellent example of where EPA's "Common Sense Initiative" can best be demonstrated. VDEQ would only support a final remedy for this site that is rational, cost effective and scientifically sound.

Thank you for your attention. Please call me if you have any questions regarding this important matter.

Yours truly,

PETER W. SCHMIDT, *Director.*

DEPARTMENT OF ENVIRONMENTAL QUALITY—COMMENTS ON THE PROPOSED REMEDIAL ACTION PLAN, SALTVILLE WASTE DISPOSAL SITE, SALTVILLE, VIRGINIA

The Proposed Remedial Action Plan for the Saltville Waste Disposal NPL site identified preferred alternatives for the areas that require remediation: Pond 5, Pond 6, and the Former Chlorine Plant Site (FCPS). Our comments on the preferred alternatives for these areas are discussed below:

Pond 5 Preferred Remedial Alternative—PSF.X:

Remedy: EPA proposes a system to intercept, collect and convey the shallow groundwater flow from Little Mountain away from Pond 5.

Comments: We fully agree with this remedy. It should complement existing diversion ditches around pond 5 and further reduce the quantity of water collected from the pond 5 outfall that requires treatment by the existing treatment facility. It should also reduce the potential for leaching of mercury from the pond and increase the overall stability of pond material. The procedure should be readily implementable without the need for specialized equipment. The capital cost could be realized from savings in treatment cost of effluent from pond 5, increased stability of pond 5 material, and reduced maintenance cost of proposed pond 5 cap.

Remedy: EPA proposes a multilayered cap constructed in accordance with RCRA Subtitle C requirements over Pond 5.

Comments: We agree that pond 5 should be capped. However, we feel that because of the nature of the waste in pond 5, the cap would have to be specially engineered and may not conform to the specifications contained in EPA guidance for RCRA cap design. Nevertheless, specific substantive requirements of a RCRA cap should be

met. Specifically, the cap should: (a) provide long-term minimization of the migration of liquids through the closed impoundment; (b) function with minimum maintenance; (c) promote drainage and minimize erosion or abrasion of the final cover; (d) accommodate settling and subsidence so that the cover's integrity is maintained; and (e) have a permeability less than or equal to the permeability of any bottom liner system or natural sub-soils present (Section 10.10, Subpart I.3 of the Virginia Hazardous Waste Management Regulations, VR-272-10-1, 1993).

Capping the waste in pond 5 would be effective in minimizing infiltration from surface water and isolating the pond material, thereby reducing the risks to all potential receptors. Though some specialized equipment would be needed, the remedy can reasonably be implemented.

Remedy: EPA proposes modifications to the existing Pond 5 Treatment Facility that would enable the treatment facility effluent to meet current Virginia Water Quality Standards.

Comment: This component of the remedy is necessary because of a 1988 change in the Virginia Water Quality Standards for Mercury. CERCLA requires that all enforceable state laws and regulations in existence at the time a Record of Decision is issued for a site be complied with. The existing treatment plant was designed with the understanding that an update would be required to meet current effluent limits. This component of the remedy can be readily implemented.

Remedy: EPA proposes institutional controls, monitoring and site maintenance.

Comment: Because waste will be left in place in Pond 5, we agree that institutional controls, deed restrictions, monitoring and site maintenance should be implemented. These actions would restrict future land use and ensure long-term effectiveness of the cap.

Pond 6: Preferred Remedial Alternatives—P6D:

Remedy: EPA proposes containment of the former chlorine plant demolition debris that was placed in Pond 6. Containment measures will include a vertical barrier wall around the perimeter of the debris and a multi-layered cap that is constructed in accordance with RCRA Subtitle C requirements.

Comments: This component of the remedy for Pond 6 may not be necessary at this time. Implementation could be difficult and it would not result in any significant reduction of risk. Also, there is the potential of actually mobilizing mercury from the pond during construction.

The Remedial Investigation report indicates that the mercury containing debris waste in Pond 6 appear to be well contained by the existing dikes. Data shows that there is no apparent migration of mercury from the pond, and there is no reason to believe that such migration may occur soon. Installation of a vertical barrier wall around the perimeter of the debris and a multi-layered RCRA Subtitle C cap are not necessary.

The debris should be covered along with the rest of Pond 6 waste materials. A suitable cover compatible with the consistency of the waste material should be engineered. Additional containment of the demolition debris in Pond 6 beyond a suitable cover and the existing dikes should only be required if future monitoring data indicates migration of mercury from the pond. Since mercury transport occurs via particle transport mechanisms, the chances of mercury migrating form the pond after a suitable cover has been installed would be rather low.

Remedy: EPA proposes placing a permeable soil cover over pond 6. Soil fill will be placed on an improved subgrade to a minimum thickness of twelve inches then covered with six inches of topsoil, fertilized and seeded.

Comment: We agree that a cover should be placed over Pond 6. However, because of the consistency of the pond material, the cover would have to be specifically engineered and may differ from the cover specifications stated above. Performance standards should be outlined at this time and specifications for cover materials should be addressed during design.

According to the risk assessment, humans do not face unacceptable risk from dermal contact or ingestion of mercury from Pond 6. Also, mercury concentration in Pond 6 effluent is typically non-detectable. A cover over Pond 6 should be more than adequate to provide long-term effective protection of human health and the environment.

Remedy: EPA proposes institutional controls, monitoring and site maintenance.

Comment: We agree with this component of the remedy for Pond 6. Because waste will be left in place, institutional controls, monitoring and site maintenance are necessary.

Former Chlorine Plant Site Preferred Remedial Alternative—FCPSE.X:

Remedy: EPA proposes excavating all of the mercury-contaminated material utilizing conventional excavating equipment and hauling the material to a designated area within Pond 5 for on-site treatment. The recommended treatment process for this material is retorting. The excavated area will be backfilled with clean fill to promote drainage, covered with top soil and revegetated.

Comment: We disagree with the proposed measure for handling the FCPS waste. The FCPS is currently capped and revegetated. Findings of the risk assessment show that the FCPS does not present a risk to ecological receptors from dermal contact or ingestion with the existing cover in place. The existing cover and structure have proven effective in containing the waste. No significant migration has been identified and the river is not being adversely impacted by groundwater from the FCPS.

The remedy outlined above presents potential hazards to workers and local residents from the mercury-contaminated material. It may be difficult to find an area in Pond 5 with adequate bearing strength for the construction of the retorting process and for storage of waste material. There are also air pollution concerns associated with the retorting process. It is not known if the retorting process can effectively treat this type of mixed waste. Extensive treatability studies would be necessary.

Because the FCP is contiguously located to Ponds 5 & 6, and since waste would be left in place in these ponds, the four-acre PCPS is not an attractive parcel of land for redevelopment even after the proposed cleanup has been implemented.

We recommend that the FCPS waste be left in place. The existing cap should be improved and groundwater control measures, upgradient and downgradient, should be implemented. These measures will provide additional assurances that the FCPS area continues to be protective of all potential receptors.

Remedy: EPA proposes that extraction wells be installed to allow for pumping of the contaminated groundwater beneath the Former Chlorine Plant Site to the Pond 5 treatment facility.

Comments: Hydrologically, the FCPS is relatively isolated with very low groundwater flow originating upgradient from the FCPS, passing under the site and discharging into the river. The yield from extraction wells would therefore be relatively low.

We propose that monitoring of FCPS groundwater should continue. Additional monitoring wells could be installed to verify subsurface flow patterns and provide data to evaluate groundwater quality and flow over time. Should long-term monitoring suggest that FCPS groundwater quality and flow is adversely impacting the river, appropriate remedial measures could be implemented at that time. Institutional controls and deed restrictions should be implemented. These would prohibit future land use and the installation of wells on the property.

TOWN OF SALTVILLE,
Saltville, VA, February 14, 1995.

Russell Fish (3HW41)
Remedial Project Manager
U.S. EPA, Region III
841 Chestnut St.
Philadelphia, PA

DEAR MR. FISH: Th Town Council of Saltville, Virginia has reviewed the Proposed Remedial Action Plan for the Saltville Waste Disposal Ponds Superfund Site, issued by the U.S. Environmental Protection Agency in January, 1995. This Plan sets forth the remedial action alternatives that may be used to reduce the risk from the presence and release of mercury from the Saltville Site owned by Olin Corporation. The Plan also sets forth EPA's preferred alternatives. The Council has heard the comments on the Plan from many of the citizens of the Town. Based on its review and the comments of its citizens, the Council understands that:

EPA's Plan states that several alternatives, including alternatives other than EPA's preferred ones, will provide adequate protection of human health and the environment;

EPA's Plan states that its preferred alternative for the Former Chlorine Plant Site involves excavating all the mercury-contaminated material, hauling the material to Pond 5, treating the material in a thermal retort, and hauling the treated material back to the Site;

Excavating material from the Former Chlorine Plant Site, hauling it, and retorting it involves some increased risk of mercury discharge and heavy truck traffic;

A small amount of mercury discharges from the Former Chlorine Plant Site to the river by way of groundwater, and that this small amount can be controlled using alternatives other than EPA's preferred alternative;

EPA's Plan also states its preferred alternatives for Pond 5 and Pond 6, and the Deed of Gift conveying Olin property to the Town of Saltville provides that Ponds 5 and 6 will be conveyed to the Town when environmental concerns with the ponds are resolved.

Based on the foregoing, the Council resolves:

Alternatives to be used for the Saltville Site should provide adequate protection of human health and the environment;

Alternatives that involved excavating and retorting materials from the Former Chlorine Plant Site are not acceptable to the Town of Saltville;

Alternatives to be used for Ponds 5 and 6 should be consistent with potential, feasible future use of these areas;

Alternatives to be used should have a minimum of heavy truck traffic and involve minimum disruption to the citizens of Saltville.

We ask that you make this Resolution a part of the public record.

Sincerely yours,

FRANK E. LEWIS, *Mayor.*
ROGER P. COLLINS.
GARLAND R. PARKS.
ELMER CARDWELL, JR.
KYLE K. ADAMS.
CHARLES C. NORRIS.
ROGER A. ALLISON.

TOWN OF SALTVILLE,
Saltville, VA, February 20, 1995.

Russell Fish (3HW41)
Remedial Project Manager
U.S. EPA, Region III
841 Chestnut St.
Philadelphia, PA

DEAR MR. FISH: I want to commend EPA and other government agencies for the cooperative relationships over the past few years. This cooperation has led to some significant accomplishments—the new Route No. 634 bridge, the new water treatment plant at Olin's Muck Pond, and plans to take care of the graveyard site. I want to see this cooperation continue.

I have reviewed the proposed remediation plans proposed by EPA for the Muck Ponds in Saltville, and while I do not claim to have technical knowledge of mercury, it seems to me that common sense would dictate that removing the soil, transporting the soil and having it burned in a retort could conceivably cause more contamination and in actuality do more harm than good. I would have a concern about leakage, disturbing the soil at the site and truck traffic in the area. I believe the best approach would be to leave the former chlorine plant site in place, undisturbed. It seems to me that Olin's plans for Ponds 5 and 6 are satisfactory to correct the problem. We would suggest a sensible, common sense approach with the Town, Olin, EPA and State agencies working together. It is tragic to see money thrown away on projects that may or may not correct a problem. If money is to be spent, let's be sure that it is spent wisely and where it can do the most good for all citizens of the Saltville area.

I am also concerned about the negative publicity that the Town receives. It seems that some individuals rejoice in depicting the Town as a cesspool of contamination. I do not believe this is the case. I believe with proper monitoring of our situation, any problems we have can be controlled. I have never seen documentation that any serious health problem exists in Saltville, and quite frankly, I cannot understand all the fuss that is being made.

I trust that EPA will seriously consider the views of the citizens of Saltville. We want to see the right actions taken and the least disruption to our community. I request you to make this letter a part of the public record.

Very truly yours,

FRANK E. LEWIS, *Mayor.*

Mr. OXLEY. Thank you, Mr. Newton.

Our last witness, Ms. Donna Rose from Ketchum, Idaho.

STATEMENT OF DONNA ROSE

Ms. ROSE. Thank you.

I am here today to talk about the Town of Triumph. I am still trying to get up the courage to go to Toastmaster meetings, so I may have to skip doing that. Triumph is a small town in Idaho. There are about 50 people who live in this little town that is about three miles from Sun Valley. We live in homes that are built close to tailings because the town used to be an old lead mine. There was never a smelter in our town, and there were no chemicals used, so we are only talking about a town that basically lives around a lot of crushed rock. It is also home to Olympic skiing champion Picabo Street, who you may have noticed won five world cups this year.

Our town received a maximum score of 100 out of 100 points, which EPA later lowered to a score of 90. This score is 30 points higher than Hanford which was the highest scoring nuclear site in the Nation. We did not know that Triumph scored 100 until we read about it just about 6 months ago in Carol Browner's testimony. EPA never told us this.

We really trusted EPA at first, and then we began to suspect that they were not there for our health. They committed atrocious acts against our community. They intentionally terrified us. They lied to us. They threatened us with fines, and with being made a PRP. They withheld the results of our health information from us. EPA is accountable to no one.

During Region X's first emergency meeting in Triumph, while they were telling us about what kind of brain damage to look for in our children, an EPA official who scored Triumph for the NPL picked up a glass of water, he pretended to choke on it, then he laughed. He later bragged that all of his sites were put on the NPL.

The next day, the newspaper came out, and the headline said, lead in Triumph well. The day after that, the bank rescinded all our loans, all of our projects stopped. About a month after that I went to Aspen to see what was going on there because I had read about an article in New Yorker Magazine, and I found out that Aspen had already been through 10 years of this.

Because of my trip to Aspen, we became really well versed in the science of lead, lead biokinetic uptake models, risk assessment, the city blood lead study, which EPA commissioned and has now ignored, as you know. I would like to see a congressional investigation opened on why that has happened.

Our community participated in three blood lead studies over the last years, and we test normal all three times, same as other rural communities. Triumph was proposed to the NPL in May 1993. EPA had withheld our hazard ranking score from us for almost 18 months while trying to force an emergency removal action on our meeting, on us, on our community.

Two nights ago there was a community meeting led by SARCO and the State of Idaho, which has now taken over the site, to discuss ripping up and replacing our yards, not because of health reasons but because of EPA's policy.

A hundred percent of our residents in this small very environmental community signed a petition to ask for a State deferral which we finally did get, and this petition we signed, we asked to keep EPA out of our lives forever. An MOA was signed between the State of Idaho, which is also a PRP and SARCO, and this became official in January.

EPA's original estimate for this site was $606 million and now it has shrunk to approximately $5 million under State lead, a difference of about $600 million.

During Triumph's public comment period, our Idaho political leadership, led by our Representative Mike Crapo, provided us with technical assistance through INEL and we found pro bono former EPA attorneys who produced over 1,000 pages of public and legal and scientific public comment.

Lawyers and scientists rescored our site below the 28 point threshold. This score is legally and scientifically defensible and will be used in MPA court challenge, if necessary. We have lawyers from all over the Nation volunteering to represent us. We would like to sue EPA.

We believe that Triumph was chosen because it was a high profile site that EPA could easily remedy and use it as a site for Superfund reauthorization. We were the perfect site to save. We also believe that Triumph should never have been proposed to the NPL list.

During the last reauthorization, Park City, Utah, was deproposed from the NPL, and I am here today to ask you to please depropose Triumph from the NPL during this window of opportunity.

Please read my written testimony today. There is a lot I didn't get to say. You are the only people that can save us from the NPL right now. If you depropose us, we can get off this list. We need you to restore our lives and our property back to normal.

Thank you.

[The prepared statement and attachments of Donna Rose follow:]

PREPARED STATEMENT OF DONNA ROSE, CONCERNED CITIZENS OF TRIUMPH

Chairman and members of the Subcommittee: Concerned Citizens of Triumph, thanks you for the opportunity to appear today to discuss the reauthorization of Superfund. In October 1991 the EPA called an emergency meeting in our town of Triumph, Idaho, population 50, about three miles from Sun Valley, Idaho, the oldest ski resort in the nation, and birthplace of Picabo Street, Olympic and 1995 World Cup skiing champion.

Triumph was formerly a silvermining town but unlike many silver towns did not have a smelter. The historic Triumph mine closed in 1957 and remaining are about 40 acres of tailings containing naturally occurring arsenic and lead. The residents live in homes that are built close to the tailings piles in a small mountain valley. To our knowledge no person in our community nor any wildlife, has ever suffered any ill effects from tailings.

In spite of the fact that there are no known health effects and there was no smelter, Triumph was given the highest score in Superfund History, a score of 100 out of a maximum of 100 points, thirty points above Hanford the highest scoring nuclear site in the nation.

On October 24, 1991 the EPA called an emergency meeting for the community of Triumph at 7:00 p.m. in an unheated/unfinished garage, standing room only, with 2/3 of the towns residents, 6 EPA, 3 State Health officials and 2 Doctors from ATSDR. EPA informed our community that the Triumph community water well had been tested by EPA contractors, Ecology and Environment Inc, five months previously and the well water tested high (86 ppm) for lead. ATSDR Doctors spent 3 hours telling our community about the effects of lead poisoning, and what horren-

dous neurological symptoms to look for in our children. Residents left this meeting in shock. The next day the Doctors held meetings at the local hospital to train our medical community about lead poisoning. We were so thankful that the EPA was here to protect us.

During this town meeting, David Bennett, EPA Region 10 Site Assessment Manager drank a glass of Triumph water and pretended to choke on it. He knew but did not tell us, that he had already scored the Triumph site for the National Priority List (NPL). Later David Bennett added that the Triumph well had been retested by Ecology and Environment Inc and the well water scored nondetectable for lead. He said the first high well (86) test for which the emergency meeting was called had possibly been a mistake or falsified. (on tape 10/24/91). We later found that the high test from 0 to 86 was statistically impossible. The Triumph well water had been tested in an EPA approved laboratory and monitored by residents for more than 15 years. All 15 years of consecutive well testing showed the well as nondetectable for lead and arsenic.

The next day local newspapers published headlines, *Lead Found In Triumph Well.* Immediately bank loans were rescinded (see First Security letter) and banks refused to lend in Triumph. Our lives, home improvement projects and dreams went on hold. People in our town were so concerned about their health and their children that then we did not give our property values a second thought. People were terrified of what they had done to their own children. Longtime residents talked about moving, sending their children away, selling their homes. Triumph is a town where there is no crime, almost no one locks their doors, and the only sign says Speed Limit 25 miles per hour, Slow Down, 10 Small Children Live Here.

Soon after the Idaho State Health Department held blood lead testing for Triumph residents and to our relief and surprise everyone tested below the level of concern, except a local gunsmith/blacksmith who tested higher than average because of his occupation. The community tested around 3 ug/dl (micrograms per deciliter of blood) for lead, below the national average, which is about 7 ug/dl. The level of concern is 10. We tried to understand why EPA kept trying to force an emergency removal action on Triumph, when the lab analysis said otherwise.

A few months later I read an article in the New Yorker Magazine of a similar EPA situation at Smuggler Mountain in Aspen. I went to visit local Aspen nurse and EPA activist Patti Clapper, and together we videotaped interviews with the Aspen health department and the county commissioners. Before I went there I had faith in EPA and thought that the New Yorker article had to be an example of slanted journalism about Aspen crazies. I was stunned. The 10 year involvement of EPA in Aspen has resulted in financial loss, stigma, property devaluation, division of the community, family unit disintegration and hundreds of lives put on hold. In addition to the above the EPA filed a $10,000,000 lawsuit against Aspen-Pitkin County to recover EPA's costs. But the reality is, in Aspen there has been no public benefit and no dirt has been moved. I thought surely the EPA has learned from their past mistakes in Aspen, Leadville and dozens of other mining sites and that this couldn't happen again in Triumph but once again the EPA marched on, driven by their flawed risk assessment and soil removal policies.

In July 1992 EPA proposed Triumph to the NPL and did not tell us of the proposal. Also in July EPA held an extremely confrontational meeting in Sun Valley and brought 8 EPA staffers from Seattle. Including legal counsel to tell us that the Triumph HRS score was high and they were going to propose the site to the NPL. EPA repeatedly stated they didn't know how high the score was, but regardless they could not and would not tell us the HRS score. We asked each EPA staffer individually if he knew Triumphs' HRS score. On tape as requested they all individually stated their name and replied no, they didn't know the score. Later, Chris Field, Region 10, Seattle EPA, On Scene Coordinator, admitted that the 8 EPA and ATSDR officials had all lied about not knowing our HRS score. In fact this has led us to wonder to whom is EPA accountable? We now advocate that in some circumstances that EPA staffers be held personally liable for their actions.

For the first time at that meeting we scared EPA. The Region 10 officials went back to Seattle and retrieved the NPL proposal package from Washington, lowered the score from 100 to 90.33 but continued to withhold the score from the community for another year. Triumph was proposed for the second time to the NPL list on President Clinton's Inauguration Day never knowing that we had been proposed once before. They still withheld the score. We only learned of this 1st proposal about six months ago when Carol Browner stated that Triumphs' score was 100 in Congressional testimony.

Five months after this confrontational meeting, on May 10, 1993, as spokesperson for the community, I received a 20 lb, 1700 page HRS scoring package from EPA in the mail with a letter allowing Triumph residents 60 days for Public Comment.

The Triumph site was given a HRS score of 90.33. The score was so high, and we had become so disgusted with EPA's arrogant strongarm tactics that we actually laughed. The score was absurdly high. Higher than nuclear sites! EPA Region 10 had retaliated. We had 60 days to make legal and technical Public Comment with no technical or legal help. A criminal charged with a felony is at least afforded a county appointed attorney. It takes a geochemist with a law degree to decipher a HRS package. We were informed by EPA that we were not eligible for a Technical Assistance Grant because the site was not on the NPL list, only proposed. We were then told by Seattle EPA that they were no longer allowed to answer any questions, now all questions must be answered by Washington. When we called EPA in Washington to ask questions, they couldn't answer them and they told us to call Seattle, who again told us to call Washington. We taped this fiasco as we did all meetings.

Members of the Concerned Citizens of Triumph drove to Boise to ask our Idaho political leadership for help. Technical assistance was immediately provided by Representative Mike Crapo's office. Idaho Nuclear Engineering Laboratory (INEL) provided 20 hours of technical help from Dr. Gregory Norrell and Tom Wood from EG&G, with additional help from Lockheed and Westinghouse. We were also successful in securing a pro-bono team of former EPA attorneys, Bob Lawrence and Chris Sutton of Parcel, Mauro, Hultin and Spaanstra in Denver, Colorado. In the two weeks remaining of Public Comment we were granted an additional 30 day extension by EPA which gave us time to jointly assemble 1000 pages of scientific and legal Public Comment. Our team worked hundreds of voluntary hours after their regular workdays. The former EPA lawyers and scientists rescored the site *below* the 28.3 threshold for proposing a site to the NPL, a far cry from 90.33 or 100. This score is scientifically and legally defensible and intended to be used in a NPL court challenge if Triumph is put on the NPL.

The strategy used by EPA to ensure that the State of Idaho would not help us with Public Comment was not to name the State of Idaho as a PRP until 8 days before Public Comment was over. The State did not make any Public Comment.

By this time residents of Triumph had participated in a 2nd blood lead study which again came back below the national average. Because of our continuing concern regarding our children's health, many members of the community shared stacks of scientific and medical studies. We became well versed in the science of lead bio-availability, UBK bio-kinetic uptake lead models, risk assessment, swine studies, and the $17,000,000 Three City Lead Study, which EPA commissioned, paid for and then ignored because the result's weren't as hoped. The more we read the more it became apparent that Triumph had an EPA based political problem, not a health problem nor even a threat to human or environmental health.

Later, (1993) Triumph residents requested a 3rd blood lead study. This time we asked to have our blood speciated to show exactly what kind of lead we had in our below the national average blood. Was the lead from food, water, paint, gasoline or mine tailings? EPA's National Enforcement Investigation Lab (NEIC) is one of the few labs in the nation to have this advanced technology. Our health study was withheld by EPA from the community by EPA for 14 months. We finally received the results after several Freedom of Information Act requests (FOIA) and the Idaho State Attorney Generals Office's official request. The NEIC/EPA report stated that the *lead in Triumph residents does not come from mine tailings.* Triumph residents blood lead is the same as everyone elses. We had specifically asked to have our childrens' blood speciated and thought that it was being tested. But to our surprise EPA and our State Health Department made sure that they didn't test the children as we requested, so now they can say, "If only the children had been tested."

By 1992 our community had lost all trust and confidence in EPA. They had no integrity. This environmentally conscious and committed community now refused EPA entry to our premises, taped and videoed all meetings and all testing, asked for duplicate samples even though we could not afford tests, tried to get EPA staffers fired and enlisted the help of the media including the Wall Street Journal, National Review and CNN. At one point Senators Kempthorne and Craig and Representative Mike Crapo stood united on my front porch for a press conference, in protest against the EPA proposing Triumph to the NPL list. Residents had posted six miles of Keep out EPA signs.

Through a FOIA request we found that EPA was estimating the cleanup of the tailings to be $606,000,000. Because we had denied EPA access to our property each Triumph household was sent a letter from The Office of Solid Waste and Emergency Response, (OSWER), signed Henry Longest, threatening residents with being named a PRP (Potentially Responsible Party), $25,000 per day fine, and treble damages of the entire cost of the cleanup, if we did not cooperate. A PRP investigator soon called on each house to ask us how we had contributed to the tailings, had we moved any dirt, had our neighbors done any excavation. Because we were scared

and intimidated we gave testimony about ourselves, our friends and family that could innocently make each one of us liable for treble damages or 3 times $606,000,000 or $1.8 billion, according to the law of joint and several liability. A $1.8 billion liability threat is more stress than the average person can bear. The greatest health risk in Triumph has been the human stress created by EPA.

Since EPA's first meeting in 1991 we have requested the State of Idaho under State deferral, take over the Triumph tailings site from EPA. The Memorandum of Agreement (MOA) between the State of Idaho and EPA was finally signed in January 1995. The State of Idaho, Asarco and the Triumph Mineral Company were named PRP's and the State Department of Environmental Quality (DEQ) will take the site lead. Cleanup is now expected to take 5 years instead of EPA's estimate of 10 to 15 years with a cost of $5,000,000 instead of EPA's guesstimate of $606,000,000. Unless Congress intervenes Triumph will remain frozen to the proposed NPL list even though there was language in the MOA to provide a pathway to deproposal.

On Tuesday March 14, 1995, two days ago, a meeting was held by Idaho DEQ to discuss yard remediation, a term commonly used for the ripping up of our front and back yards to satisfy EPA soils removal policy. EPA now is using the State of Idaho to enforce this unreasonable violation of private property rights. If Triumph residents refuse access for the ripping up of our yards, the chances of the site being handed back to EPA are great. Until EPA can prove a relationship between our soils and our health and provide us with a scientific reason that this is necessary, we will continue to refuse access. At one point when EPA was threatening us with emergency removal (while still witholding our score) and we threatened to lay down in front of the bulldozers and chain ourselves to our gates.

A year ago Henry Longest then Director of OSWER visited Triumph and recommended in a public meeting chaired by the Blaine County Commissioners, that EPA de-propose Triumph from the National Priorities List. He said that he was not the decision maker but he promised to give us an official answer in 60 days. The answer that came back was that EPA does not have a mechanism to depropose a site from the NPL without opening the floodgate to other sites. They simply cannot write their way out.

Triumph is only one of 500,000 mining sites in the Nation. In 1992 I was appointed by Idaho Governor Andrus to the DOIT (Develop On Site Innovative Technology) Committee's abandoned mine waste committee. This is a Federal think tank sponsored by four Federal Agencies to deal with all forms of Hazardous waste. The DOIT committee has recognized EPA as a regulatory barrier to efficient and timely remediation. Triumph is a DOIT community involvement project.

Our community believes that the EPA wanted Triumph as the perfect small and easily remedied site to "Save" as a high profile (because it's Sun Valley) model community for the reauthorization of Superfund. EPA never dreamed that our little community would become a Triumph vs Goliath fight and that 100% of our community would sign a petition to get EPA out! Triumph has experienced the worst of bad EPA staffing and bad EPA policies. In this battle we have also found some individuals at EPA and members of Congress who have cared deeply and tried to do the right thing. Bob Martin in Washington EPA has kept the communications open and kept his word and our faith. Representative Crapos' leadership and Senator's Craig and Kempthornes support have given us the belief that the Triumph experience can make a difference in changing bad public policy for the better.

We applaud Congress' decision not to elevate EPA to cabinet status. EPA's poor record of accomplishment has proven in the last 15 years that they are a selfserving bureaucracy known for their pork barrel projects and now the people must be protected *from* this agency. EPA's arrogance, abuse of power, lack of public benefit, lack of meaningful public participation, destruction of personal property rights and restraint of commerce can no longer be tolerated. EPA has used fear tactics in Triumph in a criminal manner. EPA uses grossly exaggerated fraudulent risk assessment models while hiding behind the guise of protecting the public's health and safety.

Concerned Citizens of Triumph make the following Superfund reauthorization recommendations: (1) we recommend abolishing the HRS scoring model as it presently exists; (2) we recommend that the National Priorities List be abolished; (3) we recommend abolishing the UBK model for use in mining sites; (4) we recommend that mining sites be treated separately as intended under the Bevill Amendment; (5) we recommend that EPA be required to use realistic parameters in risk assessment, (The Monte Carlo method) and that EPA stop using and abusing the words potential risk. Sound science must not be ignored; (6) we recommend that Congress empower the individual States' Departments of Environmental Quality to handle each States own environmental problems; (7) we recommend that Congress pass legislation to

ensure that private property rights are protected from government agency abuse; (8) we recommend that Technical Assistance Grants be given before a site is proposed to the NPL list; (9) we recommend that the public become a part of the decision making process in the beginning before EPA internal decisions are made; and (10) given all the above recommendations, we recommend that Superfund and its' NPL not be reauthorized.

We believe that Triumph should never have been proposed to the National Priority List. We do not agree with the methodology, analysis or conclusions of EPA and neither do other scientific authors. The State of Idaho has now taken over the site. I am here today as a representative for the Concerned Citizens of Triumph to ask you to learn from this experience and make proper changes in CERCLA. I'm also asking you to consider legislation to depropose Triumph from the NPL. During the last Superfund reauthorization, Park City, Utah was deproposed. Until Triumph is deproposed from the NPL list, the citizens of Triumph will wrongly continue to suffer the stigma, continued devaluation of property and risk of future liability. Our community is emotionally and financially exhausted. You hold Triumphs' future in this 104th session of Congress. Please pass legislation to depropose Triumph from the National Priority List. We thank you for the opportunity to appear here today. I will be glad to answer any more questions that you may have.

Mr. OXLEY. Thank you, Ms. Rose, and all of the panel for the excellent testimony.

I am going to get a little bit out of order here because we do have a constituent situation. I would like to recognize the gentleman from Idaho for some follow-up questions for 5 minutes.

Mr. CRAPO. Thank you, Mr. Chairman, and I appreciate, Donna, you coming all the way out from Idaho to testify.

I think that one point I would like to make and ask you to clarify is that this is not a situation where we have to do a statistical study of the town to see if there are health impacts. When you talked about health studies of the people in the town, you were talking about everybody in the town getting their blood tested, weren't you?

Ms. ROSE. Yes.

Mr. CRAPO. And everyone in the town tested, was it the average or was it below the national norms?

Ms. ROSE. We tested about two and the national average for lead is about seven, so we tested far below the national average.

Mr. CRAPO. And what is the level of concern that the EPA set?

Ms. ROSE. It is ten.

Mr. CRAPO. So you tested at 2 after people who have lived on this site, many of them for decades, and yet for some reason the studies about bioavailability of lead in the form of where you live were not honored by the EPA?

Ms. ROSE. They were not only not honored, EPA never even told us about bioavailability. We had to go discover this ourselves.

Mr. CRAPO. Given the problems that you have had with the EPA and the Superfund, could you give me some suggestions for what you think this committee ought to look at as we reauthorize the Superfund?

Ms. ROSE. We would like to see the HRS scoring model abolished, no health information is used in this model. We would like to see the EPA or that Congress abolish the National Priority List. This list does nothing but damage lives and property.

We would like to abolish the EPA urban lead model for mining sites and revise national lead policy. The UBK was never intended for use in mining sites for urban areas. We would like to see that mining sites are treated separately as intended originally under

the Bevill Amendment. We would like to see EPA use realistic parameters and risk assessment instead of the voodoo they use, and to stop abusing the words "potential risk."

We recommend that Congress empower each individual State's Department of Environmental Quality to protect each individual State. This cannot be a national matter any more, it has been bungled too badly. We pray that Congress will pass legislation to ensure that private property rights are not abused anymore by EPA.

We ask that technical assistance grants be given before a site is proposed to the NPL. Triumph was given a 20-pound, 1,700 page package to evaluate within 60 days. This is impossible for a community with no resources.

We recommended that the public become part of the decision-making process in the beginning before EPA internal decisions are made, before it is too late. We recommend that in some circumstances EPA personnel become personally responsible for their own actions. They are just accountable to no one with no checks and balances.

Given all the above recommendations, we recommend that Superfund not be reauthorized. I don't think Superfund can be fixed. It needs to be redone.

Mr. CRAPO. Thank you.

I would like to go back into one point in your testimony. You indicated that there was a time when this all started, when the headlines came out that said that there was lead found in the water. What ultimately turned out is, I think, correct me if I am wrong, but isn't there about a 15-year period of tests on the water in your community and that only the one test deviated from that and previous tests have shown that that must have been some kind of a fluke?

Ms. ROSE. That's true. The community has monitored the well for 15 years through an EPA approved lab, and we have never had a problem. What really happened is, EPA tested the lab, tested the water test, and they actually put acid in the water to test it, as part of their testing procedure, and if there was a grain of sand or anything in there, this acid would melt it, and it melted it down to a very high percentage of lead. That is normal for EPA. They should have used an unfiltered test. In fact, their protocols require that they use both filtered and unfiltered, and they did not in our community.

Mr. CRAPO. And subsequent tests have shown that there is no lead problem in the water?

Ms. ROSE. It tested zero always before that and after, and we refused to turn off the well. We have never had a problem since. We continue to use that well.

Mr. CRAPO. And you still have the problems that you have talked about in terms of the bank financing and the impact on your community?

Ms. ROSE. Yes, we do. Banks finally did start to lend about a year ago in Triumph after refusing us for several years. They won't lend very much money. In my case, on my house, they did finally refinance my house, but only because I had a letter from the bank saying that they would not lend in Triumph and they were redlin-

ing us and they really didn't want to make me any madder than I already was.

Mr. CRAPO. Thank you.

Mr. OXLEY. The gentleman's time has expired.

Let me ask the witnesses here, we heard the Administrator testify this morning that virtually all of the problems that you folks have brought to the attention of the committee would have been solved with last year's legislation. We already, I think, received a good response from Ms. Rose, but let me ask the other witnesses, if I may, starting with the Mayor, whether, in fact, in your particular area, for example, in the Brownfields, whether the bill last years would have adequately addressed the Brownfields situation?

Mr. BOSLEY. Well, I don't necessarily think so. In St. Louis, just like other cities around America, we have a lot of vacant and abandoned buildings, and a classic case of what we are dealing with right now would be, we have two-family and four-family units that need to come down, and we have appropriated a million dollars of money to do that, but now—it normally would cost us about $4,000 to $6,000 to bring a building down. Now, as a result of EPA requirements, they are requiring us to apply the same standards as we would apply if we were bringing down a four-story building which has now shot the cost up to almost $20,000 a unit. So that is an example.

Mr. OXLEY. Thank you.

Mr. Herstad?

Mr. HERSTAD. What I saw last year, and what the NFIB sent to me, and I felt it was a definite improvement. I am not entirely satisfied until the total part of retroactivity is taken out of the bill for sites that were contributed to previous to the first Superfund legislation.

Mr. OXLEY. Mr. Newton?

Mr. NEWTON. I am with Mr. Herstad. Obviously last year was a compromise. There are two major problems with Superfund, it has to do with liability, the notion of joint and several and retro, which is not fair at least to process costs and remedy selection. It went part way, I don't think it went far enough.

Mr. OXLEY. Ms. Rose?

Ms. ROSE. I would like to make a comment about future liability. In Triumph, if we could sell our houses, we are afraid to because if we sell a house in that high a scoring Superfund site in the Nation, you can be sure that somebody is not going to feel good at some point in the future, and they are going to blame us. We can't sell our houses, we are trapped there forever until this is resolved.

Mr. OXLEY. So not only have the prices dropped on the housing market, but there is no housing market, essentially, in your community?

Ms. ROSE. Well, there is a housing market, and in Sun Valley the market is very active right now, but mostly all of the homes in Triumph, because they are older homes, sell no contracts, and they only sell to friends within the neighborhood. There is virtually no one from out of the area buying into that market.

Mr. OXLEY. Let me return to Mayor Bosley regarding the Brownfields because I have an interest coming from an industrial State like Ohio, and let's go through, if we can, just briefly your

recommendations as it relates to Brownfields, and walk us through in real terms how it would affect your community, and obviously a lot of communities very much like St. Louis.

Mr. BOSLEY. One of the things is the requirements in terms of some of the regulations that we have to meet in terms of demolishing vacant and abandoned buildings. The cost has gone up substantially if we apply the same standard, the standard of what it would take to bring down a four-story building to what it would take to bring down a two-family unit or a four-family. Cities are attempting to try to landscape and bring down this vacant and abandoned property, but if we are forced to comply with these Federal mandates the cost will be extremely excessive.

I had another example where we have assembled a 10-acre site in St. Louis, basically we spent $7 million to do it. To now satisfy the cleanup cost for this site will require us to spend almost an additional $25 per square foot, and we won't be able to sell it to a developer for any more than $2 per square foot. So we need more consideration in terms of cost that cities have to bear to make these properties available to businesses and, at the same time, some type of tax incentive or tax consideration for developers and potential businesses to come in and help clean up the sites.

Mr. OXLEY. We found in the past that it was almost a badge of honor to get on a Superfund site, and early in the process it became very attractive for a lot of politicians and others to be deemed an NPL site. My sense from your testimony, is that that has changed dramatically. As a matter of fact, in Ohio, we have a situation where the Governor is urging in the strongest possible terms to EPA that two particular sites in Ohio stay off the NPL. They are worried that without the ability to exercise voluntary cleanups, and if they get on the list, they are going to be on there for 12 or 15 years, and we have a very attractive site, for example, in an abandoned Air Force base in Columbus, Rickenbacker, that has great opportunities for employment and development, and yet should we reach that fate of the NPL, we are going to suffer, I think, a long term paralysis in getting that cleaned up and that really is what we are, hopefully, going to address in the reauthorization process this year.

Let me yield now to our friend and the ranking member on the subcommittee, and the gentleman from Louisiana.

Mr. TAUZIN. I thank the Chair, and we are being called to vote, as you can see.

I just want to make a quick point. Your testimony is credible, all of you. The one thing I think you have noticed in this Congress is that we are about the business of trying to make the government cost conscious in its environmental laws and its regulations in health, safety and the environment.

The reason that it is true is exemplified in all of your testimony. Ms. Rose, you are telling a story of awful cost, not just monetary cost, but what your testimony does in such graphic terms is describe the stress on the community, not just in lost property values, not just in damages in dollars for all the problems you have had to incur, the incredible stress of having government agents compel you, intimidate you to testify against your neighbors, and possibly

subject them to unlimited, almost, joint and several liability to the tune of $1.8 billion.

I wondered if they wore black boots and black shirts when they showed up in your community? I mean it recalls a day and time in another nation when governments treated people that way.

I look at what is going on at the Olin site where you apparently worked with the Commonwealth of Virginia in 1983, doing everything you thought was proper to seal this site, and all of a sudden now you are being told you are going to have to spend another $19, $20, $30 million, and that gets passed on to all of us. To believe it doesn't cost us because Olin has to pay that bill is ridiculous.

Look, Kelvin, at 8 years of the stress and cost, $10,000, not to count the hours and the stress, you have gone to to make it here today and hear you are not going to be a PRP. Thank God, but look what you had to go through to even get that answer. The chairman said he has been waiting a year to get some letters answered. That is nothing compared to what you had to go through.

And, Mayor, the cost in your city of property devalued and unused and the damage done to a community where you could be attracting jobs and providing opportunity for the people that gave you the awesome responsibility you have as mayor of a town that is—I can see it in your grasp, people are leaving because you can't reinvigorate it with these liability laws.

I have no questions for you, I just have incredible appreciation for the fact you came here today to enlighten us, again, on some of the extraordinary consequences when Government regulators can do whatever they think they want to do because it doesn't cost them, it costs somebody else in our society to deal with them. They can make whatever plans, do whatever tests, create whatever stress and consequences in dollars in lost opportunities and jobs and property values because it doesn't cost them a dime, it just costs you and I and citizens of the country something.

You have epitomized for us today the reason why I think so many citizens have become cynical about a government that used to be its servant and has become its master, and why we are so busy trying to correct that.

Thank you very much today.

Mr. OXLEY. I thank the gentleman.

Let me inquire of my friend from Massachusetts as to whether he could complete his questioning and then race to the floor for a vote, or would he prefer that we recess and come back?

Mr. MARKEY. How much time do I have?

Mr. OXLEY. Well, you have got maybe 4 or 5 minutes, max. The second bells have rung.

Mr. MARKEY. Why don't we go vote first.

Mr. OXLEY. All right.

I understand we have a quorum call and then a 5 minute vote. So we will stand in recess for 10 minutes.

[Brief recess.]

Mr. OXLEY. The subcommittee will reconvene, please.

I understand the mayor had to catch a plane back to St. Louis so we lament his leaving but we are glad to have the remaining three witnesses and I now yield to my good friend from the Boston area.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

I was going to note to the mayor that the city of Boston has gone from 800,000 down to 550,000 but so has just about every other major city in the United States and most of it predated Superfund so that we can properly attribute to historical factors that were primarily at play in terms of what has caused the reduction in population, mostly because Irish and Italian families don't have nine kids anymore and they have moved out successfully to the suburbs, as we know.

So the question for you, Mr. Herstad, if I could, is first of all NFIB did endorse last year's bill; is that correct?

Mr. HERSTAD. Yes, they did.

Mr. MARKEY. And you endorsed it enthusiastically and included in last year's bill was prohibiting third party lawsuits, the number one problem small business owners face under current law and going down a whole list of items you endorsed wholeheartedly in terms of the efforts this committee made last year to rectify a lot of the problems which were identified up through last year and have in fact been reidentified here today but much of it dealt with last year's bill; is that correct?

Mr. HERSTAD. That's true.

Mr. MARKEY. Thank you, sir.

Now, if I can, on the issue of retroactive liability, you argue that it is wrong to punish people retroactively for mistakes not recognized as problems at the time at which the action was taken and I guess what I wind up concluding after listening to your testimony is that what you essentially want to do is replace polluter pays with taxpayer pays. That is, you don't deny that where there is a real hazard which has been identified because of a preexisting condition that it should be cleaned up because if it gets into the water table, for example, the children of that area would be more likely to contract leukemias or other diseases and clearly you wouldn't want that to happen because you can't move. People don't move their homes.

So where there is a real risk, you would want that to be cleaned up. What you are arguing is that the taxpayer should bear the burden, not the polluter where it has been retroactively identified; is that correct?

Mr. HERSTAD. Not quite. You used two terms. "Punish," number one, I don't consider what we are trying to do to punish anybody and, second, cleanup to me could—to me, I feel we should reduce the health risk to zero. That is primarily the point.

In Arrowhead's case, they have put in a water system, they have put in a sewer system, they have put in a moat around it, they have identified it, they have contained it.

Mr. MARKEY. Let's take Olin, for example. Olin is a company that ran a factory for 20 years that was putting mercury into the water. Now, you do believe that they have some responsibility or you don't believe that they have some responsibility?

Mr. HERSTAD. I believe they have some responsibility and I understand they took that responsibility.

Mr. MARKEY. They should have responsibility to pay?

Mr. HERSTAD. Yes.

Mr. MARKEY. Up to the level that they are responsible to correct any problem in terms of the health consequences for those who live in the surrounding area; is that correct?

Mr. HERSTAD. I have no quarrel with that.

Mr. MARKEY. And the balance of the payment should come, then, in your opinion, from taxpayers? If the problem cannot be corrected by——

Mr. HERSTAD. When you say "taxpayers," I understand the Superfund was a taxing mechanism with dedicated funds to go to Superfund for cleanup.

Mr. MARKEY. You would want to continue a plan whereby there is a tax which is imposed to ensure that there is a fund sufficient to clean up these sites?

Mr. HERSTAD. That's right.

Mr. MARKEY. That is correct. Do you agree with that, Mr. Newton?

Mr. NEWTON. Let me make it clear, we have paid every cent from day one and we continue to pay for this——

Mr. MARKEY. I appreciate that. I am just trying to understand his position. Your position is——

Mr. NEWTON. I have trouble separating out retroactive liability and joint and several as it is currently applied. I have really——

Mr. MARKEY. Again, your substitute though is you do believe in a tax then, generally, that will ensure that cleanups do take place where there are real hazards to public health and safety which have been identified; is that correct?

Mr. NEWTON. I believe there should be a funding mechanism where there are real health risks that take place that address that, yes.

Mr. MARKEY. Do you believe that we should not proceed unless there is a tax in place to ensure that the supplement is available in the event that the companies identified are not solvent or capable or sufficiently liable under whatever standard we use to ensure there is a full cleanup with regard to the health and safety issues?

Mr. NEWTON. I am afraid that is too complex for a yes or no answer, sir.

Mr. MARKEY. The only issue, again, I am trying to deal with here is if you eliminate polluter pays as the overriding concept, then you have to have a backup principle that you are endorsing. If you believe that these chemicals can, in fact, endanger people.

The testimony that we have from Idaho is there it has been tested three times and it is below the national average so she has got a different case from palpable cases where we know there is a direct link between the hazardous materials and subsequent cancers or other diseases.

Mr. OXLEY. The gentleman's time has expired. Mr. Newton can answer.

Mr. NEWTON. Maybe I can best address this by saying we see any type of reform as addressing both remedy selection which hopefully removed from costs will put spending where we are going to really attack the risks and not treat for the sake of treatment and, number two, if we do something about liability that removes some of the process costs and makes it more fair, there is probably enough funding to go around to handle the problem.

Mr. OXLEY. We thank the panel for some excellent testimony. You have come a long way, many of you, and we appreciate that. Thank you for your attendance.

Mr. NEWTON. Thank you.

Mr. OXLEY. Our third panel, who have been waiting patiently, would come forward.

For the record, our third panel is Ms. Mary Gade, Director of the Illinois Environmental Protection Agency, Mr. Don Clay, President of Don Clay Associates and a former assistant administrator of the EPA office of the Superfund program, Ms. Patricia Randolph Williams, who is Council and Legislative Representative for the National Wildlife Federation and Mr. Mike Steinberg from Morgan, Lewis and Bockius representing the Hazardous Waste Cleanup Project.

Ms. Gade, I know you have travel restrictions and so we would recognize you first.

STATEMENTS OF MARY A. GADE, DIRECTOR, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY; PATRICIA RANDOLPH WILLIAMS, COUNSEL AND LEGISLATIVE REPRESENTATIVE, NATIONAL WILDLIFE FEDERATION; DON R. CLAY, PRESIDENT, DON CLAY ASSOCIATES, INC., AND MICHAEL STEINBERG, ON BEHALF OF HAZARDOUS WASTE CLEANUP PROJECT

Ms. GADE. Thank you, Mr. Chairman.

Good morning. My name is Mary Gade and I am the director of the Illinois Environmental Protection Agency. I also serve as the Vice President of the Environmental Council of the States, known as ECOS, a new national, not-for-profit, nonpartisan association of State and territorial environmental commissioners.

I welcome the opportunity to share my personal views and those of my fellow State commissioners on restructuring Superfund. For over 13 years I have been involved in all aspects of the Superfund program at the regional, national and now the State level. My experience and the considerable experience of my colleagues around the country provides a strong basis for recommending critical changes to the Superfund law. In a nutshell, we believe that it doesn't work or, at least, not well enough.

It has become fashionable to say that the Superfund program is broken. Unfortunately, this characterization falsely implies that the program worked at one time. Our collective experience clearly demonstrates the underlying constructs and framework of the Superfund law are intrinsically flawed. Year after year, EPA has tried to effectively streamline and facilitate Superfund and I have actually participated in more of those efforts than I choose to remember. While these efforts have resulted in significant improvements to the law, USEPA does not have the legal authority it desperately needs to make necessary changes.

I would like to focus my testimony today on three topics: The scope of the Superfund program, the appropriate role of States in the Superfund program and the importance of risk-based decisions and national cleanup goals and standards in remedy selection.

First, let me talk about the State's role in Superfund. Superfund is the only major environmental law in this country which is not

implemented by the States and in contrast, almost identical cleanups under the Resource Conservation Recovery Act for both hazardous waste and leaking underground storage tanks are being taken care of every single day in 24 States for hazardous waste and all 50 States for leaking underground storage tanks.

To date, there have been over 250 corrective actions at hazardous waste facilities managed by the States and over 100,000 cleanups at leaking underground storage tanks overseen by States. Regrettably, however, the current Superfund process doesn't recognize or utilize these State resources and expertise.

Depending on the site, our involvement ranges from performance of most response activities through cooperative agreements to only providing the requisite State match at the time construction starts. Beginning with site assessment, most States are precluded from having a significant influence over the listing process. Unfortunately, even at those NPL sites where the State has been designated as the lead, USEPA still reserves the right to second guess our remedy selection and come in and impose its own remedy if it disagrees with us.

In the 15 years since the passage of CERCLA, State cleanup capabilities, like all State capabilities, have grown. We support an expansion of the States' role in Superfund cleanups just as we support the expansion of the States' role in all aspects of protecting the environment. Forty-one States have adopted their own State Superfund laws based on some form of liability and 44 States have developed funding authorities.

We believe that States now remediate some 75 percent of the confirmed contaminated sites in this country and will continue to do so into the future. In fact, the three States of Wisconsin, Illinois and Minnesota have already remediated over 500 sites, representing more cleanups than the USEPA has done nationally to date.

Clearly the role of States in Superfund must radically be expanded. States should be the primary implementors of Superfund just as they are the primary implementors of the Clean Water Act and the Clean Air Act. In providing for delegation, the process should be simple and straightforward. The criteria should require States to have appropriate legal authorities, adequate funding and staff and demonstrated experience in site assessment and remediation.

We believe that by making States primarily responsible for cleanup, we will increase or capacity nationwide for cleanup, minimize disruptive intergovernmental conflicts that plague the program today, expedite enforcement actions and increase the likelihood that more sites will be returned to productive use.

Second, I would like to talk about the scope of Superfund. While the existing Superfund program consumes a disproportionate part of the funds available nationally for environmental protection, it addresses only a tiny fraction of the contaminated sites in this country. Many sites failing to meet the stringent HRS scoring provisions still warrant cleanup.

In redefining Superfund, we believe that the full range of sites nationally requires consideration. By placing so much energy and capital in so few sites, the current law forces States, tribes, municipalities, individuals and private businesses to correct the cleanup

problems at these sites or let them lie fallow. I recommend substantially curtailing the listing of sites on the NPL unless the process for pushing them through the system is dramatically simplified and shortened.

Emphasis must be placed on eliminating barriers and providing incentives for private cleanup. Merely shifting the burden to the States from the Federal Government will not address the problem.

During last year's reauthorization debates, there was talk of upping the cost share for States. This was extremely disheartening to us as we already have problems funding the many environmental mandates that are already imposed upon us.

One of the best mechanisms for encouraging private party cleanup is through voluntary cleanup programs which enable a property owner to work with a State to remediate property and obtain certification that it is no longer contaminated. Twenty-one States have such programs in place already and these programs are very helpful in terms of brownfield redevelopment projects which are vitally important to our cities and to our rural areas where these lands are laying fallow.

Brownfield projects do require government assistance however, through mechanisms like grants or short-term loans to enable cleanups to occur, economic incentives for cleanups such as those that we have in enterprise zones nationally and Federal and State assurances regarding future liability.

The last thing I would like to address in terms of my testimony is that one of the most paralyzing aspects of the current Superfund program has been its focus on site-by-site decisionmaking, particularly in regard to remedy selection. I think this is caused in part by absence of clear national cleanup goals.

We believe that national goals for cumulative health risk should be established at single numerical levels for chemical carcinogens and noncarcinogenic effects. These goals would promote consistent and equivalent risk protection at all Superfund sites. We urge you to come up with decision criteria that take into account the incremental costs and benefits of any remedy options and require that risk assessments be objective and unbiased using uniform protocols and relying on reasonable assumptions.

We believe that consideration of these three issues, the States' role in Superfund, the scope of Superfund and the need for risk-based decisions will substantially improve a program which has not accomplished the goals set for it. By directing more attention to the role of States and relying on the States for greater cooperation, we will begin redefining the role of environmental protection in this country.

Thank you, Mr. Chairman.

[The prepared statement of Mary A. Gade follows:]

PREPARED STATEMENT OF MARY A. GADE, DIRECTOR, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND VICE PRESIDENT OF ENVIRONMENTAL COUNCIL OF STATES

Good morning. My name is Mary Gade and I am the Director of the Illinois Environmental Protection Agency. I also serve as vice president of the Environmental Council of States (ECOS), a new national, non-profit and non-partisan association of state and territorial environmental commissioners. ECOS represents the commissioners, directors and secretaries who are responsible for administering air, water, waste, pollution prevention, and cleanup programs in the states, territories and the District of Columbia. ECOS seeks to improve the environment by providing for the

exchange of ideas, views and experiences among the states, fostering cooperation and coordination in environmental management and articulating state positions to Congress, the Administration and EPA on environmental issues.

I welcome the opportunity to share my personal views and those of my fellow state commissioners on restructuring Superfund. For over 13 years I have been involved in all aspects of the Superfund program at the regional, national and now, the state level. My experiences range from being a staff attorney working on specific Superfund sites, to running the Superfund program in Region V of U.S. EPA, to being the Deputy Assistant Administrator for U.S. EPA's Office of Solid Waste and Emergency Response in Washington, D.C., to administering Illinois' State Superfund program. This experience and the considerable experience of my colleagues serving in Superfund's front lines nationally provide a real-world basis for making strong recommendations on critical changes to the Superfund cleanup law. In a nutshell, it doesn't work, or at least, not well enough.

It has become fashionable to say that the Superfund program is broken. Unfortunately, this characterization falsely implies that the program worked at one time. Our collective experience clearly demonstrates that the underlying constructs and framework of the Superfund law are intrinsically flawed. Despite the best efforts of some of the most dedicated, talented and hard-working staff anywhere in Federal and state government, the Superfund program as designed cannot work effectively and certainly not cost-effectively.

Congress itself attempted to thoroughly revamp the original 1980 legislation in 1986, making the law more prescriptive and giving U.S. EPA specific criteria for things like remedy selection and community assistance grants. Since the passage of the Superfund Amendments and Reauthorization Act of 1986, U.S. EPA in conjunction with the states and other stakeholders has repeatedly attempted, with dogged persistence, to make the program more efficient. This year's Superfund Administrative Reforms were preceded by 1993's Superfund Administrative Improvements Initiative which were preceded by the 1988 Ninety Day Review and so on. While these efforts have resulted in significant improvements, U.S. EPA does not have the legal authority to effectuate the kinds of changes which are desperately needed. In fact, I would go so far as to say that U.S. EPA is successfully implementing the law it was given. The Agency is in no position to address threshold questions relating to roles and responsibilities, funding and liability, or cleanup standards like permanence and preference for treatment.

The time has come for serious rethinking about the scope, purpose and structure of Superfund. Obviously, public policy decisions of this magnitude are within Congress' domain. I applaud the committee for its willingness to undertake the thoughtful debate needed to fundamentally reformulate Superfund rather than tinker around its edges. In furtherance of this discussion, I would like to focus my specific comments on three key areas: the appropriate role of states, the scope of the Superfund program including the relationship to voluntary cleanups and brownfield redevelopment, and the importance of risk-based decisions and consistent national cleanup goals and standards in remedy selection.

STATE ROLE IN SUPERFUND

Superfund is the only major environmental program which is not delegated and implemented by the States. In contrast, almost identical cleanup efforts under the Resource Conservation and Recovery Act (RCRA) for hazardous waste and underground storage tanks are fully delegated and being implemented in 24 states for hazardous waste with all 50 states cleaning up leaking underground storage tanks. To date, over 250 corrective actions at hazardous waste facilities have been managed by the states and over 107,000 leaking underground storage tanks remediated under state supervision. I know of no one who would argue that the expertise needed to oversee a hazardous waste cleanup under RCRA is less than that needed to oversee a hazardous substance, pollutant or contaminant cleanup under Superfund. Certainly, the health and environmental consequences from these various hazardous sites are identical, as are the technical decisions regarding cleanup remedies.

This discrepancy would seem inexplicable but for an underlying promise of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In 1980, Congress envisioned a cleanup program of limited scope and duration addressing approximately 400 serious abandoned waste sites over a period of about five years. Given these parameters, substantial state involvement seemed unnecessary. Further, most states, like the Federal government, had little or no experience in cleanups at that time. As the full scope of Superfund became apparent, Congress expanded the states' role in the 1986 reauthorization process requiring "substantial and meaningful" state involvement in the initiation, development and

selection of remedial actions, by falling far short of providing for program delegation or even a full voice in remedy selection.

These requirements have resulted in a patchwork of state involvement in the Federal Superfund program. Regrettably, the current process does not recognize or utilize state resources effectively. Depending on the state or site our involvement ranges from performance of most response activities through cooperative agreements and signing or records of decision to only providing the requisite state match when remedy construction starts.

Beginning with site assessment, most states are precluded from having a significant influence over the listing process. Yet, states are closer to the sites, more familiar with geographical conditions and site histories and more aware of how the relative risk posed by any given site compares to that of other sites in the state. States also are those most capable of understanding local concerns and effectuating meaningful community involvement.

Unfortunately, at those Federal sites where the state has been designated the lead agency, U.S. EPA still reserves the right to select and enforce its own remedy if it disagrees with a state-selected remedy. Responsible parties are understandably wary of proceeding with cleanup activities, directed by states without some assurance that U.S. EPA agrees with the state's actions. Worse, the end result of this approach is a duplication of effort and resources overseeing and enforcing cleanup at the same sites, often resulting in protracted disputes between U.S. EPA and the states about cleanup remedy and standards or those sites and a slower, more expensive and cumbersome cleanup process. As a result, the states believe that neither efficiency or consistency are being achieved in cleanups across the country nor the maximum number of sites being addressed.

In the intervening fifteen years since the passage of CERCLA, state cleanup capabilities, like all state environmental capabilities, have grown. We support expansion of the states' role in Superfund cleanups, just as we support expansion of the states' role in all aspects of protecting the environment. Forty-one states have adopted their own state Superfund law based on some form of liability, and forty-five states have developed funding authorities; both are key components to implementation of an effective state cleanup program. States are now responsible for enforcing or funding cleanups at their own state sites and at federal National Priority List (NPL) sites where their responsibility ranges from required cost-sharing to lead agency for site activities. We believe that states now remediate seventy-five percent of the confirmed contaminated sites in this country and will continue to do so in the future. In fact, the states of Illinois, Wisconsin and Minnesota have already remediated over 500 sites representing more cleanups than U.S. EPA has done nationally to date.

Clearly, the role of states in Superfund must be radically expanded to take full advantages of the limited resources available nationally to address contaminated sites and to tap into the wealth of state cleanup experience. States should be the primary implementers of Superfund just as they are the primary implementers of RCRA; the Clean Water Act and the Clean Air Act. In providing for delegation, the process should be simple and straightforward akin to delegations of the Underground Storage Tank Program pursuant to Subtitle I of RCRA rather than the more Kafkaesque provisions of Subtitle C of RCRA. Criteria for delegation should require states to have appropriate legal authorities, adequate funding and staff, and demonstrated experience in site assessment and remediation. Likewise, U.S. EPA's role should also change from actual implementation of the program in the field to an emphasis on assuring national consistency and effective program implementation, on conducting much-needed research and providing national guidance on cleanup approaches, standards, and methodologies. For those states not seeking delegation, U.S. EPA would continue in its current role.

Making states primarily responsible for cleanup will increase capacity for site cleanup by maximizing the effectiveness of limited federal and state resources, minimizing disruptive intergovernmental conflicts, providing for greater certainty and finality in enforcement actions, allowing for greater flexiblilty and innovation, and increasing the likelihood that more sites will be returned to productive use. To achieve these important objectives, any reauthorization of Superfund must mandate a central role for states through program delegation and as U.S. EPA's co-regulator in the development of guidance, criteria and regulations.

SCOPE OF SUPERFUND

While the existing Superfund program consumes a disproportionate share of funds available nationally for environmental protection, it addresses only a fraction of the contaminated areas in this country. The NPL currently lists approximately 1300

sites for Federal cleanup action but most experts agree that the potential universe of sites tallies in the tens of thousands. Fortuitously, each and every one of these sites will not attain the level of a Federal Superfund site under the Hazard Ranking System (HRS). Regardless, the current Superfund program, by its own admission, cannot begin to address this volume. In U.S. EPA's "Getting to Cleanup Initiative", it estimates that it will complete construction at one NPL site a week or 650 sites by the year 2000.

Many sites failing to meet the stringent HRS scoring provisions still warrant cleanup. Illinois' State Superfund program relies on the HRS but like many state's includes sites at a lower cut-off point. Consequently, whereas Illinois only has 38 sites on the NPL, our own state superfund list includes 147. More importantly, we estimate that in Illinois alone there are over 5000 potential brownfield sites. These contaminated parcels of industrial property may never appear on either the Federal or State lists but their contamination threatens public heath and precludes economically essential redevelopment.

In redefining Superfund, the full range of sites nationally requires consideration. By placing so much energy and capital in so few sites, the current law forces states, municipalities, tribes and private companies or individuals to either address the rest or, more frequently, let them lie fallow. I recommend substantially curtailing the listing of sites on the NPL unless the process for pushing them through the system is dramatically simplified and shortened. Arguably, we should complete the NPL sites in the pipeline and convert to a more user-friendly and effective system to address a broader range of sites. A comprehensive inventory of all sites with confirmed contamination must be created, preferably at the state level through state registries, and a simple mechanism established for prioritizing cleanup actions nationally.

Emphasis must be placed on eliminating barriers and providing incentives for private cleanup. Merely shifting the burden for cleaning of these sites from the Federal government to the states will not address the problem. In fact, attempts during last year's reauthorization debate to up the states' cost-share for NPL cleanups were extremely disheartening for states already struggling to finance numerous environmental mandates. Despite Governor Edgars best efforts, Illinois has not been able to adequately fund its State hazardous waste cleanup fund for five years. Further, our negative experience in funding the Leaking Underground Storage Tank program in the absence of meaningful Federal funding demonstrates the inequity of merely passing the responsibility on to the states.

One of the best mechanisms for encouraging private party cleanup is through voluntary cleanup programs which enable a property owner to work with a state to remediate property and obtain certification that it is no longer contaminated. Twenty-one states currently have voluntary cleanup programs in place. Illinois was a leader in developing and operating a voluntary program which has already remediated 100 sites with another 300 in process. Only limitations on staffing and resources prevent the inclusion of more parties in the program. A hallmark of voluntary programs is their focus on a rapid turnaround time and leadership by the private party in addressing contamination problems without state or Federal enforcement. Legislation like that introduced by Congressman Oxley last session on voluntary programs should be reviewed once again.

Brownfield redevelopment projects are vitally important to the economic viability of our cities and states. Often the contamination on these parcels doesn't warrant listing on either current Federal or state site inventories. Regardless, the presence of contamination threatens he community while the fear of future liability has a paralyzing effect on real estate transfers and redevelopment efforts. Brownfield projects require government assistance through grants or short-term loans to enable cleanups to occur so that conventional funding becomes available; economic incentives for cleanups such as those provided in various enterprise zone initiatives nationwide and federal and state assurances regarding future liability.

With appropriate measures for assisting the private sector and our free market economy, many brownfield sites need not become government cleanup projects. There are a large number of sites, however, at which the cost of cleanup exceeds the value of the land. Many sites of this type will never be cleaned up without government intervention.

In order to develop first-hand experience in the issues which impede the cleanup and redevelopment of brownfield sites, my agency has been working cooperatively with the City of Chicago on a series of pilot sites. I would like to relay a success story to you regarding one of these pilots. On Chicago's economically challenged West Side, a $300,000 City investment in cleanup and demolition of what has been referred to as an "indoor landfill" has led to the commitment of a neighboring business to stay in the City and expand its operations. The result has been 90 new jobs and $5.2 million in private investment, and has removed a major eyesore from the

community. This is an extraordinary level of return on a relatively minor public investment. Imagine what could occur if we look the $25-50 million which is typically spent on the cleanup of a single Superfund site, and applied this to cleanup and job creation in our dilapidated urban neighborhoods, in older industrial cities, and in small towns. The result would be real jobs where they are needed the most, coupled with environmental cleanup, to produce genuine improvement in our quality of life.

In sum, any reform of Superfund must carefully consider the full range of contaminated sites across the country and make important public policy decisions about their relative importance and place in a national cleanup program. While Congress may choose to continue to target the nation's worst sites for priority action, any reauthorization cannot ignore the vast number of less contaminated sites. Our finite national resources for cleanup projects should be maximized by creating inducements and eliminating obstacles for private enterprise to redevelop brownfield properties and voluntarily clean up sites without threat of enforcement or future liability.

RISK-BASED DECISIONS AND REMEDY SELECTION

One of the most paralyzing aspects of the current Superfund program is its focus on site-by-site decision making, particularly in regard to remedy selection. If the objective of the cleanup program is expeditious remediation of sites, then elimination of time-consuming, complex judgments on a case-by-case basis must occur. The decision on what to classify under this program, and the level to which it must be cleared, should rest on a strong scientific basis. These decisions must include consideration of both cost and risk, and they must include meaningful, understandable measures of accomplishments.

In other words, clear standards of what constitutes cleanliness are required, and the standards should reflect the intended use of the area. If the standards are set too low, public health may be threatened; if the standards are set too high, limited resources may be spent needlessly. The absence of national cleanup goals in the current program creates opportunities for unjustified variations in cleanup levels from site to site and region to region, as well as resources wasted in defining an appropriate cleanup level for each and every site. National goals for cumulative human health risk should be established as single numerical levels for chemical carcinogens and non-carcinogenic effects. These goals would promote consistent and equivalent risk protection at all Superfund sites. Equally important, national goals would form the basis for devising standardized cleanup methodologies and models to set specific contaminant concentration levels in soil and groundwater.

Establishing these national goals need not be a lengthy and contentious endeavor given our substantial collective experience with the existing program. By directing U.S. EPA to convene stakeholders in a consensus-building rulemaking process, Congress would bring closure to this problematic issue once and for all, allowing all parties to get on with our real objective—effective cleanups.

Blindly applying a national goal without regard to cost or technical feasibility, however, will lead to future failures. Congress must establish decision criteria that take into account the incremental costs and benefits of any remedial options and require that risk assessments be objective and unbiased, using uniform protocols and relying on reasonable assumptions rather than worst and best cases.

The establishment of national goals and sound decision criteria relating to risk assessment, technical feasibility and cost will lead to a more consistent and effective national cleanup program. We believe that states are well-suited to make these determinations.

CONCLUSION

Consideration of these issues—the states' role in Superfund, the scope of Superfund, and the need for risk-based decisions—will substantially improve a program which has not accomplished the goals set for it. By directing more attention to the role of the states, and relying on the states for greater participation, we will also begin to redefine the role of state environmental agencies and U.S. EPA, making them true partners in the business of cleaning up America.

That is not only good environmental policy, Mr. Chairman, that is good federalism. Thank you for the opportunity to appear before the Committee.

Mr. OXLEY. Thank you, Ms. Gade and I am going to ask you a few questions and then I know you have to run. Actually so do I.

How do we prevent just shifting all of these lawsuits from Federal courts to State courts and pitting PRP's against each other and getting caught up in delays? Your testimony states that criteria for delegation to the States should include a requirement that States have appropriate legal authorities. Would that include adoption of joint and several liability in your estimation?

Ms. GADE. Mr. Chairman, I think that depends on what the Congress does this year with Superfund reauthorization and when I talked of legal authorities I wasn't assuming that it was going to be the existing liability structure or funding structure. I think that is something that is fair game for Congress to take up and reconsider.

All I was saying is that it is important that States have the authority to implement whatever program Congress and the USEPA delegate to them.

Mr. OXLEY. Do you believe the RCRA corrective action works or does it need substantial revision in your estimation?

Ms. GADE. In my estimation, RCRA corrective action is as flawed as the Superfund program. It followed several years after the Superfund paradigm was established and it contains many of the same problems that the Superfund program has in terms of too many studies, too much analysis, too many complications and too much difficulty in terms of defining remedies that are cost effective and technically feasible.

I really think that at the time Superfund is reconsidered we need to look at the RCRA corrective action as well. It almost makes no sense to have two parallel programs.

Mr. OXLEY. You state in your testimony that Congress must establish decision criteria to take into account the incremental costs and benefits of any remedy options and require that risk assessments be objective and unbiased using uniform protocols and relying on reasonable assumptions. These are fundamental principles, as you know, in H.R. 1022 which has already passed the House and I believe fundamental principles that must be part of Superfund.

Can you tell us whether EPA's current risk assessment process is reasonable and how far off the current statutory criteria are from considering incremental costs and benefits?

Ms. GADE. I don't think I am qualified to do that comparison exactly but I do think it is important that we try and get some uniform risk assessment procedures in place and protocols so that analysis can be consistent from site to site. There have been, I think in the past, some real abuses of the risk assessment process.

I know that when I was working in Region 5 of USEPA working in the Superfund office, we had one site situation in which we did a risk assessment and one of the scenarios in terms of what we were going to use for cleanup levels had a child diving into 10 feet of water and eating the sediments. That certainly isn't a reasonable assumption in terms of what will happen in terms of exposure at that site.

I do believe that it is incredibly important that we look at H.R. 1022, we look at the current risk assessment process at EPA and try and make it a more rational, more useful process.

Mr. OXLEY. H.R. 1022 says that EPA should choose the most cost effective remedy among options which would achieve substantial equivalent risk reductions. Do you think that is a good idea?

Ms. GADE. The cost effective approach, I think that it is important that costs be used in terms of making these determinations. One of the problems is you just assume you are going to do the remedy regardless. I think taking into account the full balance and range of costs that are associated with it. I think we could do a better job of looking at cost effectiveness or cost benefit at these sites. I think we are wasting dollars needlessly.

Mr. OXLEY. Thank you and thank you for your testimony and you are free to leave.

Ms. GADE. Free to go? Thank you.

Mr. OXLEY. I think we have got three locals here so it is not as difficult for them, even though we appreciate your patience on this matter.

Our next witness is Patricia Williams, Council and Legislative Representative of the National Wildlife Federation and we have a vote on the floor.

We will go through Ms. Williams's testimony and then I will recess for the vote and then return.

Ms. Williams.

STATEMENT OF PATRICIA RANDOLPH WILLIAMS

Ms. WILLIAMS. Thank you, Mr. Chairman.

Chairman Oxley, members of the subcommittee, I appreciate the opportunity to testify before you today on the beleaguered Superfund program. I am the other Pat Williams. I am not a congressperson yet but I am the legislative representative and council of the National Wildlife Federation, the Nation's largest conservation organization.

The Superfund program is clearly in need of reform. From the environmental perspective, sites that remain contaminated for 10 to 14 years create lingering detrimental effects to human health and the environment. Superfund reform must occur in 1995. Swift reform is particularly imperative to the people that live in communities burdened by the health and the environmental impacts of being near superfund sites. We cannot afford further delays in site cleanups.

Congressman Oxley, I ask that my full statement and the article that appeared in the National Wildlife Magazine on Superfund reauthorization, Playgrounds to Dump Grounds to Battlegrounds be submitted for the record.

Mr. OXLEY. Without objection.

Ms. WILLIAMS. Thank you, sir.

I would like to briefly outline some of the issues that NWF would like Congress to consider to make the Superfund program more efficient and cost effective. The overarching mandate of Superfund is to protect human health and the environment. While the legislative parameters that carry out this mandate are being debated, it should not be forgotten that at the foundation of Superfund are people, people who suffer from the adverse physical, emotional and financial effects that often result from living next door to a Superfund site.

Although CERCLA and the National Contingency Plan require that information be provided to communities regarding site deliberations and remedy selections, this is not translated into true and meaningful involvements by communities in this process.

When we talk about allowing communities to have meaningful participation and meaningful involvement, those words must be more than just rhetorical concepts. Affected citizens should be afforded the same input into the remedial process as all other stakeholders, including responsible parties and the Federal and State government. This factor becomes particularly important when we considered changes to Superfund's remedy system that will include land use determinations.

Congressmen, I would like to talk a little bit about the liability system and say that NWF holds steadfast that responsible parties should pay for the cleanup of sites. However, we believe that fairness should be injected into the system. We support an allocation process whereby parties are assigned their fair share of liability for the cleanup of the site. We believe such a scheme will reduce litigation transaction costs and give parties some certainty about their levels of obligations at a site.

NWF has heard the concerns of people who have only tangential ties to a Superfund site. These mom and pop entities often cited as de micromus parties deserve relief from the system. The cure should not be more deadly than the disease and these parties with no real connection to a site should not be ensnared in the liability scheme.

Under the allocation scheme, parties that have contributed a small amount of waste regardless of their size as an entity, as a company, should be identified as early as possible, pay their obligation and gotten out of the system.

Congressmen, NWF recommends that future land use be considered in remedy selection. There should not be an unfair paradox between environmental protection and economic redevelopment. We believe that consideration of future land use will be a further catalyst in putting abandoned industrial waste sites back into economic reuse. However, we must add some caution about considering land use in the remedial setting.

Clearly there are instances when variable land use is not appropriate. Moreover, there must be safeguards to ensure that land use designation remains consistent throughout the use of the property. Also it must be determined who will enforce these land use designations. Congress must clearly lay out these parameters and as we have before stated, land use decisions will require greater and earlier involvement in the remedial process by all stakeholders, particularly local affected community and local government. Traditionally, land use determinations have been made at a local level.

There has been much said today about brownfields and we would like to add our two cents in. Industrial and commercial ventures which consider the purchase and redevelopment of previously used sites will foster economic redevelopment and productive reuse of those existing industrial sites, will stimulate economic growth of the surrounding areas and, from the environmental perspective, will preclude siting of industrial developments on limited green fields.

Mr. OXLEY. If you could summarize it, Ms. Williams?

Ms. WILLIAMS. Of course, sir.

Clearly, there has been a chilling effect about Superfund on perspective purchasers and lenders from investing in abandoned waste sites and we applaud EPA's initiative, brownfield initiatives and support Superfund reform that will stimulate brownfields. We encourage development of State voluntary cleanup programs and we also encourage some form of liability relief for perspective purchasers, lenders and innocent land owners.

Last, Mr. Oxley, just very quickly, we say that there are some States, we agree with Ms. Gade, that there are some States that have the infrastructure in supporting a Superfund program. We ask that Congress—there has been much duplication of the process between State and Federal lead. We ask that Congress looks at this issue closely and make some determination but we say, again, at the crux of Superfund are people.

We talk about costs but we must remember not only economic costs but costs to human life. We look forward to working with the committee on this issue.

[The prepared statement of Patricia Randolph Williams follows:]

PREPARED STATEMENT OF PATRICIA RANDOLPH WILLIAMS, NATIONAL WILDLIFE FEDERATION

Chairman Oxley, members of the Subcommittee, I appreciate the opportunity to appear before you today to comment on one of the most important and controversial federal environmental laws, Superfund. My name is Patricia Randolph Williams. I am counsel and legislative representative for the National Wildlife Federation (NWF), the Nation's largest conservation education organization.

INTRODUCTION

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to respond to the number of uncontrolled and abandoned hazardous waste sites throughout the country that contaminate the environment and threaten the health of humans and wildlife. The law established a fund (Superfund) which provided resources to the federal government to finance waste site cleanups. CERCLA allowed the federal government to either conduct the cleanup of the abandoned hazardous waste sites and then identify and impose liability for the costs of cleanup on potentially responsible parties (PRPs), or order the PRP to conduct remediation of the site.

In 1986, the Superfund Amendments and Reauthorization Act (SARA) brought the first major overhaul to CERCLA. In enacting SARA, Congress made substantial changes to certain sections of CERCLA and created entirely new sections in an attempt to address the significant problems in CERCLA's implementation. Despite Congress' intention in 1986, Superfund has remained beleaguered and problematic.

At the time of Superfund's inception, Congress could not foresee the magnitude and technological complexity of the sites under Superfund's cleanup domain; nor did Congress envision the contentious, time consuming and costly litigation that would be generated as a result of determining who contaminated the site and the amount of waste that parties were responsible for placing on sites.

Although the Environmental Protection Agency (EPA) recently delisted approximately 25,000 sites from the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), there still remains 14,000 potential sites with 1,300 that qualify for priority cleanup. With the average length of time to complete site cleanup at 10-14 years, the sites create a lingering detriment to human health and the environment.

Superfund reform must occur in 1995. Swift reform is particularly imperative to the people that live in communities burdened by the health and environmental impacts stemming from nearby hazardous waste sites. If reauthorization does not occur before the 1995 expiration of the taxing authority which funds the Superfund program, the result will be further delays in site cleanups, and greater health threats to the affected communities and their residents.

The Superfund reform debate has largely been driven by the concerns of industrial stakeholders. NWF appreciates their concerns and commits to working with the industrial sector to discuss common goals whenever possible. Although the industrial sector is a large part of the Superfund debate, it is essential to remember that at the core of Superfund are communities of your constituents that must live, play and work everyday at or near these hazardous waste sites.

COMMUNITY INVOLVEMENT

The overarching mandate of Superfund is "to protect human health and the environment." While the legislative parameters to carry out this mandate are being debated, it should not be forgotten that there are people who suffer from the adverse physical, emotional and financial effects that often result from living next door to Superfund sites.

Industry, small businesses, municipalities, states and federal agencies who have been identified as responsible parties at Superfund sites also suffer hardships from their involvement with these sites. However, unlike the citizens living next to the site, PRPs typically do not have to live with the results of cleanup decisions.

CERCLA and the National Contingency Plan (NCP) require that information be provided to the community regarding site deliberations and remedy selection. However, states, federal government and responsible parties are often intimately involved in the site evaluation process, while local citizens—those at direct risk from the site—have no meaningful or timely input into the decision-making process. Affected communities have not been part of the remedial solution but instead have been treated like the problem. In many instances, citizens were excluded from participating in many critical Superfund site decisions and were not included in the remedial process until the remedy was selected. This is too late.

Among the critical decisional stages where citizen involvement should be included are the: (1) preliminary assessment and site analysis (PA/SI), (2) development of site health assessment studies, and (3) remedy implementation and oversight. Decisions made at these stages have a profound impact on human health and the quality of a Superfund community's environment.

Meaningful community participation and involvement become even more critical if changes to Superfund's remedy require additional local factors to be considered in the decision-making process, such as in the case of future land use decisions. Although EPA is making greater efforts to provide the public with more information about sites, citizens must be viable participants in decisions that impact their communities. Failure to involve the public early in the process results in community resentment toward federal and industrial stakeholders, and a sense of disdain towards a system that treats them as adversaries rather than victims.

LIABILITY

NWF holds steadfast to the idea that the polluter should pay; it is fair and brings into play the forces of the market. NWF believes that Superfund's current liability system provides important incentives for both cleanup and pollution prevention. Because the foundation for Superfund is based upon the site-specific, polluter pays principle, Superfund liability has prompted industry to take aggressive steps to manage their waste more carefully and, in some cases, reduce their waste altogether. However, NWF will not foreclose review of any funding alternative that accelerates the prompt and effective cleanup of abandoned toxic waste sites.

NWF recognizes that the current liability scheme has inherent shortcomings that can and should be fixed. The current law has spawned thousands of lawsuits as industry seeks reimbursement for its Superfund costs. These lawsuits have swept in many small entities and individuals with only tangential connection to the Superfund site. In addition, small contributors—sometimes called de minimis parties—have been generally unable to quickly settle their liability under Superfund, resulting in needless uncertainty and costs. Finally, although the current law allows EPA to provide some federal funding to address instances where unfairness arises in applying the cost share for an orphan portion of the site, such funds have been provided very infrequently.

To derail the proliferation of lawsuits and large transaction costs associated with the current liability regime, NWF recommends that all potentially liable companies participate in an informal allocation process to assign each liable party a fair share of response costs. This allocation process will largely eliminate the current morass of litigation and compress the often lengthy litigation process. Parties involved in Superfund sites will know their responsibilities quickly and be able to settle with the government early in the cleanup process. NWF would also maintain the government's authority to compel one or more parties to perform cleanup work, or reim-

burse the government if it undertook the cleanup work to ensure that cleanup activities are not slowed.

NWF has consistently advocated the greater use by EPA of its settlement authority under CERCLA § 122, including de minimis "cash out" agreements, mixed funding, nonbinding allocations of responsibility (NBARs), and alternative dispute resolution (ADR) to address concerns of unfairness and high transaction costs under Superfund. Since EPA has failed to consistently use these authorities, NWF recommends that these authorities be legislatively prescribed to ensure that entities such as municipalities, small businesses, de minimis parties and truly tiny parties (cited as de micromis parties) are not unduly burdened under the current liability system.

NWF also recommends that the federal government pay for costs attributed to so-called "orphan shares." These costs are currently borne by other responsible parties at Superfund sites and these parties have complained that it is unfair to force them to pay for costs assigned to insolvent companies or rims that no longer exist. Clearly, there is some concern about this approach. Although we do not oppose injecting greater fairness into the current system through additional federal assistance, we cannot support such efforts if it means fewer funds for ongoing cleanup work and other program activities. We encourage Congress to facilitate funding that will allow use of the orphan share funding but not at the sacrifice of ongoing cleanup efforts.

FUTURE LAND USE

Superfund's current statutory provisions on cleanup standards do not authorize the consideration of future site use as a factor when assessing the cleanup levels for a site. Although EPA currently considers land use in some remedial cleanup decisions, this decision-making process is not guided by any explicit principles or procedures to ensure that these decisions are made protectively and consistently around the country.

Considering future land use in remedy selection should not be viewed as an abandonment of the permanent remediation of sites, but as a remedial alternative which considers that the residual risk level at a site is consistent with all current and future on-site and off-site land uses. Cleanup of hazardous waste sites should not be an unfair paradox between environmental and economic development. Land use management is a catalyst in putting contaminated industrial lands back into use as productive economic assets. Despite this advocation for land use management, it should still be noted that there are instances where variable land use considerations are not appropriate. Congress must clearly lay out the parameters when land use determinations are and are not appropriate.

As discussed previously, remedial decisions which consider land use criteria will require greater and earlier involvement in the remedial decision-making process by all stakeholders, particularly local communities and local government. Land use is essentially a local issue, so it becomes imperative that stakeholder involvement include citizens who live near hazardous waste sites and are directly affected by the cleanup decision, and local and state officials.

Land use considerations should not circumvent the statute's mandate: protection of human health and the environment. Whenever a remedy relies on land use restrictions to be protective, there must be appropriate safeguards to ensure that land designations remain consistent throughout the use of the property. Appropriate institutional controls which restrict land use include zone redesignation and covenants on the deed citing the scope of land use options available at a site. Moreover, it is imperative that there is an identified agency that is responsible for enforcing the land use determination.

ECONOMIC REDEVELOPMENT

Economic redevelopment of abandoned industrial sites commonly referred to as "brownfields" will be the cornerstone in the revitalization of some economically distressed urban and rural areas. Productive reuse of existing abandoned industrial sites is pollution prevention at its best. Industrial and commercial ventures which consider the purchase and redevelopment of previously used sites will foster economic redevelopment and productive reuse of those existing industrial sites. It will also stimulate, economic growth of the surrounding areas and will preclude siting of industrial developments on limited "greenfields" or pristine property.

Although Superfund has been effective in fostering pollution prevention and waste minimization, the law has inadvertently produced a chilling affect which has stymied prospective purchasers and lenders from investing in the renewal of abandoned contaminated waste sites. In some instances, this situation has led to redlining by financial institutions of communities situated near or adjacent to contami-

nated waste sites. These sites are shunned by prospective developers who are afraid they might inherit exorbitant cleanup liabilities for contamination they did not create. Sites which once provided the lifeline of economic vitality and jobs to thriving communities have been abandoned for fear of the contamination which might be present.

NWF supports Superfund reform that will stimulate brownfield development. NWF recommends encouraging development and implementation of more state voluntary cleanup programs which enhances a state's ability to clean up low priority sites. NWF also recommends that some form of liability relief is provided to prospective purchasers, lenders and innocent landowners. In order for bona fide prospective purchasers to obtain Superfund liability relief, they must not contribute waste to the site, make a good faith effort to determine if the site was contaminated, cooperate with the cleanup effort at a contaminated site and not aggravate existing contamination conditions. Lending institutions whose only connection to a site is collateral for a loan warrant the same relief.

NWF applauds EPA's current Brownfield Economic Redevelopment Initiative. We see this as a first step in ensuring that environmental cleanup is a building block to economic development, not a stumbling block. Restoration of contaminated property revitalizes a community through job creation, an enhanced tax base and overall community sustainability through economic and environmental initiatives.

STATE ROLES

Under current law, a state may enter into a cooperative agreement with EPA to act as the lead agency for a National Priority List (NPL) site. However, the state cannot proceed with the remedial response unless EPA has concurred with the selected remedy. This system of shared authority has lead to significant duplication and delay.

Conflicts also arise because federal funding of remedial actions at NPL sites cannot proceed unless the state assures EPA: (1) payment of all operation and maintenance (O&M); (2) availability of off-site disposal facilities if necessary; (3) payment of a ten percent (10%) remedial action cost share and (4) 20 years of hazardous waste treatment or disposal capacity for all hazardous waste reasonably expected to be generated within the state. If a state cannot fulfill these obligations and assurances, EPA cannot obligate trust fund money for the cleanup. These problems have often resulted in delayed cleanups and poor federal-state relations.

In the last several years, many states have developed their own state "Superfund" programs and are capable of site remediation without intervention by EPA. Some qualified states have the infrastructure to support a delegation of specified activities. Other states do not have adequate infrastructure to assume complete authorization of the state's Superfund program, nor do some states want to assume wholesale responsibility for the cleanup of NPL caliber sites. Regardless of whether it is the state or federal government which assumes authority to be the lead agency for the remedial phases of the response action, NWF encourages the Congress to review the federal/state relationship and clearly delineate remedial responsibilities to avoid duplication and delay in cleaning up hazardous waste sites.

CONCLUSION

NWF looks forward to working with the Congress as it proceeds with Superfund reauthorization. It is essential that the reformed Superfund program not only retains the mandate of the current statute—protection of human health and the environment—but also benefits and enhances the well-being of the affected community.

Thank you again for the opportunity to testify today. I'd be happy to answer any questions.

Mr. OXLEY. I thank you and the committee will stand in recess so that we can catch the vote on the floor and return in approximately 10 minutes.

[Brief recess.]

Mr. OXLEY. The committee will reconvene.

When we last met, we were about to recognize a fellow Buckeye, Don Clay, former Assistant Administrator with the EPA Office of Solid Waste and Emergency Response and welcome, Mr. Clay.

STATEMENT OF DON R. CLAY

Mr. CLAY. Thank you, Mr. Chairman. I'm pleased to be here. My testimony today will be based on my experience in implementing the law, which was from 1989 to 1993 but seemed longer sometimes.

After 15 years of looking at Superfund it is time to take the hard look, and I commend the chairman for doing that.

Let me start with two general observations. One, there is too much focus on the process and procedures in the Act and not enough on meaningful environmental results. We sometimes get all wrapped around in process and we don't care about the results. Second, it is my observation that Superfund has not been a good environmental value for the money spent. Surely the society could have spent the money elsewhere.

Turning then to what works in the Superfund program, I think the removal program has been a success. I think that's going in and immediately taking care of problems that has been the greatest risk reduction for the money spent and would certainly need to be retained in any sort of reauthorization effort.

I think the Superfund accelerated clean-up model, SACM, which is based on the removal initially that I started when I was there, I think has been successful, the idea of focusing on results, of using one set of data for many uses, and just emphasis on speed and results and not on the process.

Finally, I think the RCRA corrective action program is useful to consider as a model although I think some fixes are needed and this I disagree with Mary Gade. I think there are lessons to be learned there. It's not perfect but there you have a quick, simple ranking followed by emphasis on reducing risk, often with stabilization, which I think has been used much more effectively there. You have much more flexibility. You don't have the permanence, the treatment requirements and you have a philosophy of designing to keep the businesses there operating while still protecting the environment, so I think it is protective. I think it is much faster. I think it's better. I think there are lessons to be learned. I don't think it is perfect.

What needs to be fixed? As you look to reforming Superfund, again as others have said I think the remedy selection area holds great promise for savings. We need to shift away from a contamination orientation to a risk base. I think that will make the liability of who pays easier. If you are paying for less then I think it becomes easier to raise the money and decide how to do that.

How clean is clean is the question that has never been resolved and in fact may be the wrong question. It may be better to ask can we achieve real risk reduction and at what cost? The AAR's have not been helpful, have added to confusion. I think it is time to switch to a risk orientation based on more realistic risk assumptions—really Mary's example of going down through the water to the sediment is wrong.

I also believe that a risk range is more appropriate than a single number because I think that you have to allow some flexibility.

Preference for treatment and permanence need to be revisited. Some soil and groundwater cannot be treated and I think you need

to make sure that you allow for the trying of innovative technologies because often the technologies are just not there.

The role of the States needs to be revisited and again I would agree that State and local governments should make the land use decisions and do need a stronger role.

I believe the underground storage tank program is a good model for the State role, particularly with limited oversight, but of course it's a classic example of unfunded mandates and you wouldn't want to do that again at this time, I suspect.

National Priority List is counter-productive. You have heard that this morning. It hurts communities with great stigma. We need something that is much simpler, less burdensome, some other way of setting the priorities.

In terms of the existing liability scheme, I think it's too high a price to pay in unfairness and efficiency. It's certainly time to consider other approaches and make sure as we do that that we still encourage people to do cleanups voluntarily because everything is not a Government problem and we have got to make sure that the system allows that to happen.

Finally, the areas to watch for as you are changing the programs, if you are going to be doing more of the States, you've got to realize that all States will not want nor need a remedial program, therefore you are going to have to allow for some sort of Federal role that if you are going to provide money to the States to do remedial action that is difficult to do in a predictable way because the amount of money they need varies tremendously year by year or within the year where they are at in construction on-site.

You have to pay attention, I think, to the interaction of State and Federal facilities and you may give some thought to keeping the Federal facilities as part of the Federal program, not giving them back to the States.

Finally, I think that you need to reward flexibility and innovation and right now in some cases the Inspector General, very zealous in some areas, which I think are policy areas. Nobody would deny the right of the IG to go look for waste, fraud and abuse but in some cases you have got to allow people to try things.

With that, I appreciate the opportunity and would be pleased to respond to questions at the appropriate time. Thank you.

[The prepared statement of Don R. Clay follows:]

PREPARED STATEMENT OF DON R. CLAY, PRESIDENT, DON CLAY ASSOCIATES, INC. AND FORMER ASSISTANT ADMINISTRATOR, EPA OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

Good morning. My name is Don R. Clay, and I am President of Don Clay Associates, Inc., a public policy consulting firm devoted to environmental issues. I appreciate the opportunity to be here today and share some of my observations based on my experience running the Superfund program as the former EPA Assistant Administrator for the Office of Solid Waste and Emergency Response, and also as a private sector policy advisor to companies and communities dealing with Superfund.

As a professional risk manager with experience running a diverse array of government programs, including EPA's Offices of Air & Radiation and Pesticides & Toxic Substances as well as the Consumer Product Safety Commission and the Food and Drug Administration, I believe I am well-qualified to state that I believe the current Superfund law is not a cost-effective use of society's resources, either government or private; and that it places too high a priority on process over substance, preventing program staff from using flexibility or innovation. In short, I believe that the

Superfund law is "broken" and should be fixed. Clearly the problem is more difficult and complex than we thought when we started in 1980.

I commend the Subcommittee on its approach in addressing Superfund reauthorization. Chairman Oxley, as well as Chairman Smith of the Senate Subcommittee on Superfund, Waste Control and Risk Assessment, have indicated their intention to reform Superfund with an open mind and a "clean slate," as if the Congress were starting anew with the benefit of the knowledge we have gained in the last fifteen years. It appears that the Subcommittee is prepared to confront some of the problems with this law in a dramatic, thoughtful way. I welcome and support this effort.

I also want to take a moment to commend the Superfund program staff at EPA for their efforts in implementing an often intractable statute. The impacts of Superfund on individual communities and companies are quite high, and often EPA officials find themselves in the midst of controversy and polarized debate. The law itself is full of inconsistencies—EPA is told to go faster, yet involve the public every step of the way; select "permanent" solutions for groundwater that cannot be remediated; and enforce strict, joint and several liability against municipalities, small businesses, and others that can't afford to pay the bills or who, in fact, disposed of waste in a manner that was legal at the time. Many Superfund staff have dedicated themselves to making this well-intentioned but badly flawed statute work from its early days, when it first became a political "football" and never quite recovered. I am hopeful that all parties, working together, can fix this law's inconsistencies and put the legacy of the waste disposal practices of the past behind us.

Today I plan to briefly address three issues: What I believe is working in the Superfund program, and should be retained in any new Superfund law; what needs to be fixed, and some suggested reforms; and finally, areas to watch out for in changing the law.

WHAT WORKS IN THE SUPERFUND PROGRAM

First, let me focus on the successes of the Superfund program.

Foremost among these is the removal program, which seeks to address immediate or short-term threats to human health and the environment as quickly as possible. Despite its name, "removal" doesn't just involve digging up drums or removing contaminated soil; it also involves providing access to public water lines; fencing off contaminated areas; treating "hot spots" or other immediate threats; and any other measures designed to immediately ensure that the public is protected. All of these activities occur with a minimum of bureaucratic requirements and generally, with minimal time and expense: the statute limits removal actions to two years and $2 million, although EPA can and does occasionally exceed those limits. I am convinced that the removal program has provided the greatest risk reduction for the dollar of any part of the Superfund program. It also builds public confidence in their safety and in the government's ability to act quickly and protectively. I urge the Subcommittee to retain the current removal program as a real, cost-effective means of protecting human health and the environment.

Building on the removal program's success, I instituted the "Superfund Accelerated Cleanup Model" (SACM) in 1992. SACM was designed to integrate the successful aspects of the removal program into the remedial program, which is the part of the program designed to address long-term threats to human health and the environment. SACM started out as a pilot, and now has begun to spread to all aspects of the program as the Regions realize the success of "one-stop shopping" the cleanup process.

Prior to SACM's implementation, the site would be studied repetitively before cleanup began: one round of studies in order to "score" the site under the Hazard Ranking System; a second round in order to do the Engineering Evaluation/Cost Assessment for a removal action; a third round, to do the Remedial Investigation/Feasibility Study prior to selecting the remedy; and potentially a fourth round of studies during the remedial design. No wonder the average Superfund cleanup takes seven to ten years, costs millions of dollars, and frustrates the surrounding community!

SACM tried to change all that by collecting a single round of data for purposes of ranking the site, doing the removal, and selecting the remedy. Many Regions have begun combining their Site Assessment, Removal, and Remedial programs into single bureaucratic entities. SACM helps avoid duplication, bureaucratic "hand-offs," and needless expenditure of public and private funds. I urge the Subcommittee to retain this innovative "one program" approach.

Finally, I would draw the Subcommittee's attention to what I believe is a very successful initiative launched by the Corrective Action program under the Resource Conservation and Recovery Act (RCRA). Although I believe that the RCRA statute

also is badly in need of revision, I do think EPA has taken a sensible approach to a potentially daunting cleanup program under RCRA. Like Superfund, RCRA Corrective Action is a remedial program designed to clean up past and present disposal sites. However, unlike Superfund, RCRA applies to sites where the owner or operator holds a permit to operate under Federal law. Corrective action to remediate past releases of waste is a component of a site's RCRA permit. There are almost 4,000 of these sites nationwide, and the EPA program staff responsible for this program knew several years ago that they would quickly bankrupt the owner/operators if they took an irresponsible approach to cleanup.

Instead, the RCRA program launched the "Stabilization Initiative" in 1990. The focus of this program was to rank the entire universe of RCRA sites using a simple "high-medium-low" scheme, and then take quick action at the high-priority sites to stabilize the contamination and ensure that human health and the environment were protected. In this way, the public has been assured that no RCRA site poses an immediate threat to human health and the environment, and that the contamination at these sites will not spread. Once the stabilization initiative is completed, EPA managers can then return to sites in their priority order and determine whether additional action to address long-term threats is needed. This approach is orderly, cost-effective, and preserves the financial viability of these single-owner sites. After all, what good does it do to drive these owners into bankruptcy, and create sites that must be addressed under Superfund? I believe that this approach may provide a valuable model for Superfund cleanup.

All three of these programs—the removal program, SACM, and the RCRA Stabilization Initiative—share a common theme: quick action, without bureaucratic requirements, to address immediate threats to human health and the environment. They focus on results in reducing risk, not process. I urge you to make this theme the hallmark of a reformed Superfund.

WHAT NEEDS TO BE FIXED IN REFORMING SUPERFUND

The areas I believe are most in need of reform arise in the remedy selection process where I believe significant cost savings are possible. Today I will address three of them: cleanup standards, the preference for permanence and treatment, and the role of the States in the cleanup decisionmaking process. I will also briefly touch on the National Priorities List issue and Superfund liability.

"How clean is clean" is a question that has dogged the Superfund program from its inception. The current law attempts to answer that question in a way that satisfies all stakeholders, and in the end satisfies no one. One of the major "drivers" in determining an acceptable remedy is the requirement that it attain "applicable or relevant and appropriate requirements," or ARARS. In practice this means that the Federal government must enforce both Federal and State cleanup standards, at a given site. In some cases, the State disagrees as to the remedy, resulting in confusion and uncertainty for the community and the potentially responsible parties (PRPs). In other cases, the Federal government is forced to "pick and choose" as to which requirements, Federal or State, are applicable to a site. The lack of national program consistency as to cleanup standard-setting is troublesome.

I believe it would be better to shift from a contamination orientation to one that is based on risk. I would propose that the current remedy selection process be based on site-specific risk assessments, taking into account actual exposure pathways and reasonably anticipated land use. Risk assessments, should be based on realistic assumptions, not theoretical worst-case assumptions, using as much site-specific information as possible. The protocol for conducting such assessments should be nationally consistent, developed with opportunity for public comment. The data used should reflect any actions taken to date, so as to encourage "preemptive cleanups."

In selecting an appropriate remedy, human health risk ranges should be used as guideposts, weighed against other factors such as the costs and benefits of the potential remedial actions. In general, the benefits of a remedy (both quantitative, in terms of incremental human health risk reduction, and qualitative) should exceed the costs to society. Again, the general analytical framework for making this risk management decision should be generally nationally consistent, subject to public input as it is developed. Although quantifying benefits beyond human health risk reduction is difficult, a good qualitative debate would be at least a starting point for discussing these societal values.

With respect to natural resources damages, I am concerned that the state of economic valuation techniques is not sufficiently developed to realistically enforce this aspect of the Superfund law. While restoration of natural resources is certainly a valuable goal, the vague and largely unquantifiable aspect of determining natural resources damages is troubling. To date, this issue has not been an enormous re-

source drain for either the Superfund program or most PRPs. However, I believe that this is an emerging problem that should be addressed by placing some reasonable boundaries on valuing these damages.

An area ripe for reform is the requirement that all remedies contain a preference for treatment and permanence. Quite simply, this is impossible at many sites. The materials involved at most Superfund sites are contaminated media and groundwater. in the case of contaminated media, "treatment" (usually in the form of incineration) is an inappropriate use of society's resources. I believe there is little benefit to be gained in burning vast quantities of soil. With respect to much of the groundwater, "treatment" and "permanence" are technically unattainable. EPA has acknowledged as much in several guidance documents relating to the impracticability of remediating groundwater containing dense non-aqueous phase liquids.

Of course, some highly-contaminated soils or sludges still merit treatment, and immediate action as to these "hotspots" should be required as part of the emergency removal/stabilization. But attempting to impose treatment and permanence on the remaining low-risk soils and groundwater is very expensive, with few concomitant benefits to human health or the environment. This also points to the need to continue to foster the development of more innovative technologies to address these problems.

With respect to the State role, the current Superfund law is one of very few environmental statutes in which the program implementation is not delegated to the States. Rather, the Federal government often finds itself in a position of making local land use decisions; answering questions as to restrictions on property transfer of a site; and telling local communities what their fate will be. These are not Federal decisions. States and localities are far better positioned to make these decisions. Once the immediate threats to human health and the environment are addressed and the site stabilized so that contamination will not worsen, States and communities will have more time to weigh their priorities and determine the most cost-effective and locally-important future for the site. The Federal government should empower the States with some resources necessary to pay for these decisions, but these resources are of necessity finite.

An approach I would bring to the Subcommittee's attention is the Underground Storage Tank program. The UST program has been justly criticized as an example of an unfunded Federal mandate to the States. However, the UST program's limited Federal oversight role may provide insights for Superfund reauthorization.

I would like to briefly touch on the National Priorities List issue. At the law's inception, the NPL was viewed as an administrative decision-making tool so that the Federal government could prioritize which sites were of national interest. Fifteen years later, it has become a bureaucratic nightmare. Communities routinely object to NPL Superfund listing, rightly fearing that property values will plummet and the ability to obtain bank loans and attract new businesses will disappear. Lenders, buyers, developers, and underwriters now inquire as a matter of due diligence as to the Superfund status of a site, and an NPL listing raises a tremendous red flag given the wide net cast by Superfund liability. These consequences were certainly not intended by EPA, but nonetheless EPA and stakeholders spend an inordinate amount of time scoring, ranking, and arguing about the NPL listing of a site. At the same time, EPA is "hamstrung" from spending federal remedial money unless a site is listed.

I believe these bureaucratic distinctions are artificial and counterproductive, especially since the NPL ranking system is simply a rough prioritization tool and is followed by a comprehensive risk assessment. I would propose that Congress eliminate this needless duplication and replace the NPL with a simpler, less burdensome priority-setting tool. Again, I would use the RCRA corrective action ranking scheme as a possible starting point for modeling reform.

I would also note that Superfund's existing liability scheme carries too high a price in unfairness and inefficiency. I believe that it is time to consider other approaches as we consider restructuring Superfund. in addition, I do believe that those who lawfully disposed of waste in the past should not be unfairly penalized. The retroactive strict, joint, and several liability system is frequently unfair, based on incomplete or nonexistent records, and encourages endless negotiation and threat of legal challenge at every step. In many cases, the "polluter pays" principle is a misnomer because the polluting activity occurred decades ago—often when the practice at issue was completely legal and ethical.

Many small businesses and municipalities simply cannot afford to pay their volumetric share. Companies that kept good records are penalized with a larger share of responsibility; those with sloppy or nonexistent records get off free. Purchasers of businesses engaged in these past waste disposal practices find themselves paying for the activities of their predecessors, over which they had no control. Potentially

responsible parties (PRPs) who step forward and volunteer to undertake cleanup are rewarded with burdensome consent decrees, as well as significant transaction costs.

The knowledge that every step of the enforcement, allocation, and remedy selection process may be challenged permeates every step of the decision-making process for both public and private parties. As a result, PRPs may conduct duplicative "shadow" studies behind the government. The government collects endless rounds of data and double-checks every data point so that it will withstand judicial scrutiny. These resources could be put to better use.

Finally, I believe that some finality should be encompassed in the liability scheme, so that stakeholders can predict their financial stake with some certainty and those who step forward to clean up voluntarily, know that they will not be second-guessed. Many States have voluntary cleanup programs, and EPA is piloting some administrative efforts at the Federal level which are helpful, though not as much as they could be. Wherever possible, I believe that such voluntary actions should be encouraged by assuring stakeholders that they will not be subject to further potential liability.

AREAS TO WATCH OUT FOR IN CHANGING THE PROGRAM

In the current climate of opportunity for reform, I urge the Subcommittee to use bold strokes in rewriting the Superfund law. At the same time, I have several cautions.

With respect to State programs, not all States will want to take on Superfund remedial action. While many States have active and capable remedial programs (some of which predate Superfund), others may view this as yet another unfunded mandate. One way to solve this is to make the delegation process as flexible as possible, so that the States do not fear second-guessing by the Federal government. Another, of course, is to parcel out remedial block grants. In spite of these incentives, there are still some States that do not want the program. The Federal government will continue to operate some part of the remedial program in these States.

With respect to block grants, I would caution that it is hard to pass out remedial money to States in a predictable way. When I was at EPA, it was difficult for even the regional offices to predict what their remedial funding needs would be a quarter ahead of time. Remedial funding varies greatly from year to year, and is very hard to anticipate.

A third area of caution is Federal facilities. State delegation is important, but you must also calculate the impact on Federal facilities of States imposing their own requirements. Having a Federal PRP such as the Department of Defense or Interior at a State-lead site may look like an attractive deep pocket for States. Some limitations must be imposed so that the Federal budget does not run overboard on these sites, many of which pose the largest and most impossible to fix problems from an environmental standpoint (i.e., there is simply no way to treat radioactive mixed waste).

Finally, I would caution you that any changes to the program should reward flexibility and innovation, and not simply replace one set of rigid requirements with another. Many times I have seen situations where the program staff wanted to utilize an innovative or unusual solution, but the Superfund law's prescriptive procedural requirements either prevented innovation, or so buried it with paperwork and bureaucratic hassle that the initiative simply died of inertia. In some cases, efforts to "color outside the lines" by EPA staff are rewarded with Inspector General audits that penalize any deviation from rigid regulatory protocols. While I believe that the IG has a proper role to play in ensuring adherence to the law and regulations, I would caution you to avoid rigid "one-size-fits-all" mandates that will stifle individual managers from trying to solve problems creatively.

CONCLUSION

I appreciate this opportunity to assist the Subcommittee, and wish you well as you begin your efforts to reform this complex, controversial, and vitally important law. I would be pleased to answer questions at any time.

Mr. OXLEY. Thank you, Mr. Clay.

Mr. Steinberg.

STATEMENT OF MICHAEL STEINBERG

Mr. STEINBERG. Thank you. I am delighted to be here on behalf of the Hazardous Waste Cleanup Project. Our membership rep-

resents a broad cross-section of American industry. What unites us is the conviction that the remedy selection process under Superfund is badly in need of a major overhaul.

The current system exaggerates risk at Superfund sites. It discourages common sense approaches to clean-up and instead it fosters clean-ups that are slow, cumbersome, expensive and in many cases unnecessary. What is worst of all, it wastes everyone's money on a scale that is truly appalling.

I would like to focus my remarks on risk.

In our view, and I echo the remarks made by several others today, the goal of the Superfund program is risk reduction. We believe it's got to be risk reduction on a site specific basis.

In order to achieve that goal, remedy selection should begin with a realistic, unbiased assessment of the risks posed by a site. Superfund should then communicate those risks to the public and help to put them in context.

Unfortunately, that is not how Superfund works today. Two years ago in a report entitled "Exaggerating Risk" we took a close look at how EPA conducts risk assessments at Superfund sites. We focused on the exposure component of risk assessments because exposure is largely what drives risk in the Superfund setting.

The risk posed by a site depends heavily on whether anyone will ever be exposed to it. What we found is that risk assessments under Superfund systematically exaggerate the extent of exposure and therefore systematically exaggerate the risks posed by sites.

There are at least 4 or 5 different ways in which this result comes about. I would like to run through those quickly.

First, EPA tends to ignore the common fact pattern that by the time a remedy is being selected for a Superfund site all known existing exposure pathways have already been addressed by removal actions. No one is any longer drinking water that may be contaminated. No one is any longer in direct contact with contaminated soil. Those pathways have typically been closed by removal actions and yet the risk assessment proceeds as if those pathways still existed.

Second, instead of using actual site specific exposure data, Superfund risk assessments tend to work off hypothetical assumptions like the one Mary Gade mentioned earlier. A similar example is the frequent assumption in an industrial site context that a trespasser will choose to live on an industrial site, will sink a well into the most contaminated portion of the aquifer and will use that well as his sole source of drinking water for the remainder of his adult life. Assumptions like this exaggerate risk.

Third, even when site specific exposure data are actually used, EPA tends to pick upper bound, high-end values instead of reporting a range of values or looking at measures of central tendency.

For example, EPA may take 25 samples of soil at a site and when the time comes to fix the chemical concentration value to use as an input in the risk equation instead of picking the median or the mean EPA may tend to pick something like the 95th percentile—again exaggerating risk above central tendency.

Fourth, using conservative or upper bound values for many different variables and then multiplying them together in the risk calculation EPA tends to compound the conservatism that is inherent

in each one of them. In our report we included a chart showing how EPA might calculate a value for adult soil ingestion at a Superfund site. It was 1,200 times higher than the best estimate or the most likely estimate of what an adult would actually ingest.

No one value was off by a factor of 1,200 but when you multiply together several that are off you compound the conservatism.

Fifth, EPA reports the results of Superfund risk assessments as single numbers, not as ranges, not with any qualifications. This tends to mask the variability in the data and it hides from the public any safety factors that may have been put into the risk assessment process and may have affected the results.

Our point is not that safety factors have no place in Superfund. Our point is that the first goal of risk assessment is an accurate calculation of the best estimate, the most probable estimate of risk. If as a matter of policy it is thought appropriate to inject a safety factor on top of that and report an even higher risk, that second step needs to be transparent and it needs to be explained so the public can take a look at it.

Mr. OXLEY. If you could summarize briefly.

Mr. STEINBERG. In closing, our report was never intended to suggest that Superfund sites are risk-free. Our point rather was that risk is a function of exposure and as long as we keep systematically exaggerating exposure, we will never be able to get a good handle on what the risks truly are.

Thank you, Mr. Chairman.

[The prepared statement of Michael Steinberg follows:]

PREPARED STATEMENT OF MICHAEL STEINBERG, ON BEHALF OF THE HAZARDOUS WASTE CLEANUP PROJECT

Mr. Chairman, Members of the Subcommittee: Thank you for the opportunity to testify today on the Superfund program. Superfund exerts profound impacts and imposes huge costs throughout our society. The current program is fundamentally defective and cries out for reform. We applaud your leadership in addressing this urgent national concern.

I am pleased to testify today as counsel for the Hazardous Waste Cleanup Project. This Project was organized specifically to seek reform of the remedy selection provisions of Superfund and related hazardous waste cleanup programs. Its members are major national trade associations and corporations representing the aluminum, automotive, chemical, insurance, iron and steel, and petroleum industries of this country; a current membership list is attached for the hearing record. The Project's past activities include Congressional testimony and the publication of several studies on Superfund remedy selection issues, including "Exaggerating Risk," "Sticker Shock," and "Technological Reality." Copies of these publications are also being submitted today for the hearing record. [The publications are retained in the subcommittee files.]

My testimony today will focus exclusively on remedy selection issues, consistent with the purposes of the Project.

The key issues I will address are as follows: (1) the problems with Superfund and the objectives of reform; (2) risk assessment and risk communication; (3) site-specific decisionmaking; (4) site prioritization; (5) the future of the National Priorities List; (6) preferences and ARARs; (7) ground water; (8) the interaction of the problems with Superfund's remedy selection process; and (9) the timing of judicial review of remedy selection decisions.

As a final preliminary point, we emphasize that Superfund reauthorization must be completed this year. Absent fundamental reform, it will be extremely difficult to justify extending the taxes and the appropriations to keep the program going beyond 1995. More important, every month that goes by without reauthorization means more bad decisions and more wasteful spending. We urge that the legislative process move forward swiftly.

PROBLEMS OF SUPERFUND; OBJECTIVES FOR REFORM

For several years now, Superfund has been a lightning rod for complaint. It has been criticized intensively, repeatedly, and from all sides.

From our perspective, the most fundamental criticism is that the remedy selection provisions of the current law get in the way of making sensible decisions at Superfund sites; they do this by driving decisions toward selecting remedies with costs that far exceed their benefits in terms of risk reduction. The law should be revised explicitly to favor selection of the least costly remedies that will protect human health and the environment.

The need for this reform is underscored by comparing Superfund's remedial program with its removal program. The removal program is the one part of Superfund that works well. Under this federal emergency program, EPA takes immediate steps to address direct risks to health and the environment, and it does so on a relatively modest annual budget. The successes of the removal program have eliminated most situations where any tangible threat to public health or the environment might exist.

In the remedial program, however, where most of the money gets spent, problems flourish. This long-term construction program is directed primarily at presumed *future* risks that are often remote and sometimes purely speculative. The program is costly, ponderous, and inefficient. This is the program where real reform is sorely needed.

As we reported in "Sticker Shock," our society is spending more to clean up contaminated sites than we are spending for research on cancer, heart disease, and AIDS.[1] Yet based upon what we know about the relative risks to human health, site remediation is far *less* cost-effective than most health screening programs.

In order to successfully refocus the remedial program of Superfund, Congress must first clearly acknowledge that the risk reduction benefits of many cleanups mandated under current law do not justify their huge costs. This is not an academic point. Currently engaged in implementing this program are thousands of engineers, technicians, program managers, and lawyers who are operating under guidelines and assumptions that reflect earlier directives from Washington. If their understanding is to be changed and their operations modified, a strong and clear message must be sent. We urge you to send that message without delay.

RISK ASSESSMENT AND RISK COMMUNICATION

It is clearly stated in the Superfund law that the purpose of remedial action is protection of human health and the environment. It must also be clearly understood that what this means is *protection against unreasonable risks* to human health and the environment. This does not include an objective of cleaning up contaminants to pristine levels, one-size-fits-all national cleanup levels, or any other abstract standards that go beyond what is needed to protect human health and the environment.

The current Superfund program operates as if every site posed a grave danger to human health and the environment. Yet this assumption is controverted by EPA's own Science Advisory Board, which found that Superfund sites rank "Medium to Low" as a public health problem.

The fundamental building blocks for a successful remedial program must be a realistic assessment of the risks posed by individual Superfund sites and a meaningful communication of those risks to the public. Under the heading of risk assessment, the key elements include: selection of actual or plausible exposure pathways instead of hypothetical pathways; greater use of site-specific data in preference to default assumptions; and, where site-specific data are unavailable, use of central tendency assumptions instead of high-end assumptions. Under the heading of risk communication, the key elements include explaining all assumptions and comparing the risks from Superfund sites to other risks commonly experienced by members of the community in their daily lives, such as the risk of accidents in the home or workplace.

We were encouraged by the basic thrust of the risk assessment and risk communication provisions in H.R. 1022 as recently passed by the full House. H.R. 1022 recognized that risk assessments should be based on actual exposure pathways or reasonably anticipated exposure pathways. The current Superfund remedial program, in sharp contrast, often bases risk assessments on exposure pathways that do not exist today and probably will not exist in the future. For example, a Superfund risk assessment may assume that an adult trespasser will gain access to the site, sink a well into the most contaminated ground water, and then use that water as his

[1] Hazardous Waste Cleanup Project, *Sticker Shock* 11-19 (1993).

sole source of drinking water for several decades. Moreover, the risk assessment may ignore practical realities that make this situation even more implausible, such as physical barriers that prevent trespassing. When risks are quantified on the basis of fanciful assumptions, and then publicized without adequate explanation, people are needlessly alarmed and the credibility of the entire program is undermined. For all of these reasons, the underlying land use [2] issue should be addressed specifically in any reauthorization bill that this Subcommittee develops.

SITE-SPECIFIC DECISIONMAKING

Our overriding concern that remedy decisions be both risk-based and site-specific leads us to caution the Subcommittee against reliance on so-called "presumptive" remedies to help achieve reform. The potential benefit of "presumptive" remedies for certain categories of Superfund sites is that they could help to expedite the RI/FS and remedy selection process. But past experience indicates that overburdened Agency staff will insist on applying such "presumptive" remedies in situations where a site-specific approach would yield better decisions. For this reason, we are skeptical that "presumptive" remedies should play a major part in reforming the remedy selection process. At a minimum, the parties performing the RI/FS at each site should have the option of whether or not presumptive" remedies will be applied to that site.

SITE PRIORITIZATION

Yet another area in which accurate risk assessment will improve the Superfund remedial program is the prioritization of contaminated sites. Given the steep costs of Superfund, it is essential that program expenditures be focused on those sites most in need of attention on a nationwide priority basis. Sites that pose the greatest risk should be first in line for remedial actions. Unfortunately, that is not how the program operates today.

Under current law, EPA uses the Hazard Ranking System ("HRS") to score candidate sites for placement on the National Priorities List ("NPL"). Neither the scoring process nor the listing process includes any risk assessment, much less an accurate risk assessment.

On the contrary, the HRS scoring process often ignores the current condition of the site and scores it based on previous conditions that no longer exist, such as wastes that have been removed from the site or a day care center that has been closed. EPA's purpose in carrying out the HRS scoring is simply to list the site on the NPL in order to make it eligible for federally-funded remedial action, *not* to assess the degree of risk it actually poses. In fact, some sites that are listed on the NPL are ultimately found to require little or no remedial action.

The key point is that once a site is listed, Superfund typically pays little attention to the HRS score it received or even to its ranking on the NPL. The sequence and timing of remedial actions at NPL sites across the country bears no discernible relationship to their HRS scores or their NPL rankings.

We believe that requiring the use of sound risk assessment principles would greatly enhance the credibility of the HRS scoring process. Sites should be re-scored to reflect improved risk assessment methods; they should also be re-scored to reflect any risk reduction measures implemented after the initial scoring. These reforms would make the resulting HRS scores, and the NPL rankings of individual sites, useful points of comparison for setting national priorities for future Superfund expenditures.

THE FUTURE OF THE NPL

The above reflections on the success of the removal program, the weakness of the remedial program, and the lack of risk-based prioritization suggest another avenue that the Subcommittee may wish to consider as it pursues reauthorization. Absent some fundamental change in the program, the NPL will grow by several thousand sites, in part because current law and EPA practices exaggerate the risk they pose. But it is not at all clear that a multibillion-dollar federal remedial program for NPL sites should be part of Superfund in the future. Rather than continuing to let the NPL expand, the wiser course might be to cap the NPL at its current size, acknowledge that limited resources should be channeled toward the current NPL sites, arrange to complete "work in progress" at these sites, and then limit the Superfund

[2] In other words, remedy selection should reflect current and planned land uses, not hypothetical future land uses. In the Superfund context, "land use" includes the uses of ground water and surface water.

program to emergency removal actions in the future. Some clear and compelling justification is needed if the NPL is to keep growing. To date, no such justification has been put forward.

PREFERENCES AND ARARS

Whatever the scope of the federal remedial program may be in the future, by far the most important area for reforming the Superfund statute is to eliminate the existing preferences for treatment and permanence and the mandate for ARARs ("applicable or relevant and appropriate requirements"). Both the preferences and the ARARs were added to Superfund in 1986 in an attempt to reinforce the assurance that remedial actions under Superfund would achieve protection of human health and the environment. *The flaw of both preferences and ARARs is that they create a tilt in the remedy selection process that, in many cases drives the decision toward costly remedies that are not justified by their risk reduction benefits.*

Citing the current statutory requirement for both preferences and ARARs, EPA often rejects containment remedies that are protective and highly cost-effective in favor of more expensive remedies that entail treatment of contaminated material. This is important because containment is central to the Superfund program. The essence of containment methodology is to eliminate exposure pathways, that is, to leave the hazardous substances in place, but to ensure that they cannot migrate out of the contained area, while also imposing safeguards to prevent any possible human exposure to the substances within the containment enclosure.

From an examination of the Records of Decision setting forth EPA's selection of remedies at actual Superfund sites, it is clear that containment is often a component of remedial actions. The reason is that containment often is the most practical method to prevent exposure to the hazardous substances and thereby to assure protection of human health and the environment. Yet the thrust of both preferences and ARARs is either to strongly discourage the selection of containment remedies at many Superfund sites, or to encourage needless and costly treatment "add-ons" to containment remedies that are already protective. At best, this is an obstacle to making good decisions. At worst, it is a mandate to make bad decisions.

After nine years, ARARs can now be regarded as an experiment that failed. The hallmark of a good remedy is that it protects public health and the environment by reducing risk, not that it meets some abstract numerical standard developed for an altogether different purpose. We urge the Subcommittee simply to eliminate ARARs from the Superfund law.

With the elimination of ARARs, we do not envision any preemption of State cleanup standards or other applicable requirements. But if the States want cleanups to achieve State standards that are more stringent than what is required by federal law, they should fund the additional work attributable to that decision instead of looking to Superfund to do it for them. Otherwise, greater stringency in remedial actions at NPL sites will remain a "free good," a result that we simply cannot afford.

GROUND WATER

Another recurring problem in the Superfund remedial program is how to address ground water that has become contaminated. The technical challenges involved in cleaning up ground water are formidable and the costs are high, while the risks of exposure to the contamination may actually be quite low. All too often, Superfund requires massive expenditures on long-term treatment projects designed to make the ground water as clean as household tap water. These decisions are made without regard to the current or likely future use of the ground water.

We believe the time has come for Superfund to start addressing ground water issues on a risk reduction basis. If the ground water is likely to be used for drinking water, and if a realistic risk assessment indicates that contamination poses unacceptable risks, then a remedy should be selected to address that risk. The point of compliance for that remedy should be based on the point of exposure to human or environmental receptors. The factors to be considered in making these decisions must include technical feasibility and cost. Depending on the circumstances, the remedy could involve conventional pump-and-treat technology, or point-of-use treatment, or natural attenuation, to name just a few of the options.

If, on the other hand, the ground water is unlikely to be used for drinking water, then Superfund generally should not be requiring costly treatment programs. Long-term monitoring and periodic reevaluation of the situation would be a better approach. Depending on the circumstances, containment of the plume may also be appropriate in these situations, based on the factors discussed above.

INTERACTION OF REMEDY SELECTION PROBLEMS

It is important to understand that these numerous problems with Superfund's remedy selection process are not separate and distinct from one another. Instead, they combine and interact at many sites to produce a variety of bad results. These bad results range from risk assessments that greatly overstate the actual risk posed by particular sites to remedial actions that needlessly inflate the cost of protecting human health and the environment. Some good examples can be found in a 1994 report released by The Business Roundtable, entitled "Site Studies on Superfund Remedy Selection." Copies of that report are being submitted today for the hearing record.

TIMING OF JUDICIAL REVIEW

At Superfund sites with costly remedies, it is not uncommon to see pitched legal battles that drag on for years, imposing huge transaction costs. A contributing factor in this dynamic is the ban on pre-enforcement review in the current law. That ban should be lifted.

In 1986, Congress amended Superfund to prohibit judicial review of challenges to remedies chosen by EPA until work at the site was complete, or until EPA filed an enforcement action in federal court. The intent of this provision was to avoid having cleanups delayed by wrangling over who should pay for the work. That goal has been achieved,[3] but at an unacceptably high price.

Because pre-enforcement review is unavailable, the Potentially Responsible Parties ("PRPs") face an extraordinary dilemma at sites with costly and controversial remedies. The PRPs may refuse to settle with EPA, preferring to preserve their rights to challenge the remedy in court at some future date. This approach often leads to protracted litigation, high transaction costs, and years of uncertainty. By the time the court hears the remedy challenge, the money has already been spent and the remedy cannot be changed. This makes judges reluctant to rule against EPA, because doing so makes the Superfund itself the real "loser."

Alternatively, the PRPs can settle with EPA and give up their right to have the remedy reviewed by a court. This lowers their transaction costs in the short term, but it may mean higher costs throughout the Superfund program in the longer term because so few remedies end up being reviewed in court, leaving EPA free to continue adopting wasteful remedies at other sites.

There is no reason to bar pre-enforcement judicial review altogether. As several courts have recognized, EPA actually benefits by knowing early on—when there is still time to modify the remedy and mitigate the contested expenditures—whether its selected remedy is likely to be upheld. And EPA is more likely to adopt sensible remedies in the future if it knows that judicial review is available at an early stage.

At a minimum, pre-enforcement judicial review should be available at sites with costly remedies, such as work expected to cost more than $10 million. It may be desirable to place some limits on the authority of federal courts to issue injunctions against completion of ongoing cleanup work. But the courts should definitely be available to hear disputes over costly remedies and—where the remedies are arbitrary and capricious or otherwise unlawful—to issue declaratory relief at the earliest possible time.

CONCLUSION

As a final statement, I wish to repeat the opening comment that the members of the Hazardous Waste Cleanup Project commend this Subcommittee for its laudable efforts to address severe problems in the current Superfund program. In these remarks we have emphasized the main points that in our judgment require further thought to develop a fully effective bill for Superfund reauthorization. There are a number of other details that also warrant additional work and refinement. We will be pleased to work with this Subcommittee and its staff with the goal of achieving rapid progress toward the completion of Superfund reauthorization this year.

Thank you, Mr. Chairman. I will be pleased to answer any questions you or other members of the Subcommittee may have.

Mr. OXLEY. Thank you. Let me follow that up. You were I think present when Congressman Markey was——

Mr. STEINBERG. Yes, I was.

[3] The current ban on pre-enforcement review has not brought about the swift completion of remedial actions at NPL sites. A recent study by the General Accounting Office found that the average duration of these projects is just over seven years.

Mr. OXLEY. [continuing] describing a Superfund site in Massachusetts and made the reference about fencing off a particular area and the potential for teenagers riding their dirt bikes in and out of that site.

Let's assume for a moment that that was the case, that somehow the protection around that particular area had broken down or wasn't allowed for. Using his example, are you saying that the EPA would use the most conservative estimate in terms of risk as exactly the way the gentleman from Massachusetts described?

Mr. STEINBERG. Certainly if EPA were doing a baseline risk assessment, EPA would assume that no fence existed even if the fence was in good shape and well maintained and that is a pretty typical situation.

Getting to the remedy side, long-term containment is an appropriate option at some sites. Along with it has to be a long-term system to ensure the integrity of containment measures. You can't build a fence and then walk away and forget it and assume it will last forever, nor should you do, as EPA currently does, the assumption that the fence doesn't exist at all.

Mr. OXLEY. We had some people in yesterday from Florida regarding the closing of an Air Force base and they told me that I think there were 17,000 acres at the base and one of the areas, a very small area less than an acre of the 17,000, was actually contaminated.

Their question to me was why couldn't we essentially fence that off or at least release most of the acreage for local development? Indeed, as we try to size down the military one of the encouragements for local communities is to develop those very attractive sites, and they made the point for example that 17,000 acres is the size of some cities, and yet when we have a Superfund site in a city we don't rope off the whole city or we don't make the whole city a Superfund site.

Were they correct, and if so, how do we deal with those kinds of situations? Let me ask Mr. Clay first and then any of the other witnesses could testify as well.

Mr. CLAY. Well, they are fundamentally right, and again that gets to part of the problem with the National Priority List in terms of the site named will be that. In reality the legal definition will be the contaminated portions of the base are really on the site but not the whole base itself.

Prior administrations have certainly tried to work on the divisibility of bases and can you in fact branch off and just segregate the parts, and I suspect that work is still going on, so that was also discussed in the Federal Facilities Act that was debated several years ago, but it's not a matter of just branching off. You want to get on with addressing the problem but you want to be able to partition it into different units and the land that is obviously free and clear, not contaminated, should be in fact open for development.

Mr. OXLEY. Ms. Williams?

Ms. WILLIAMS. Congressman, we agree with Mr. Clay. What we hope will be brought to this legislative process is more realism. Clearly in the situation that you just addressed, 17,000 acres and there is a small parcel that needs remediation, from our perspec-

tive that 17,000 acres should be brought back into economic reuse for whatever the community needs.

Once again we reiterate that community involvement—obviously these are people who are coming and talking to you and have some concerns—what we hope would be injected into this system is realism and I guess the question that we have is why is it considered, why was all of this parcel of land held up at this time?

Again, we don't know all the circumstances. Could it be that this one little parcel, this hot spot, was migrating off into some of this other acreage? I don't know what the answer to that is but clearly we want to bring realism into the system.

Mr. OXLEY. Let me ask each one of you, in her written testimony Ms. Gade discussed the need to significantly curtail the number of sites on the NPL and turn the remaining sites over to the States, along with the flexibility required to address a larger number of sites with the same pot of money.

Do you believe that this is feasible, Mr. Steinberg?

Mr. STEINBERG. Very much so, Mr. Chairman.

In addition, the NPL is currently projected to grow by several thousand sites if we don't change this program in some fundamental way. That kind of growth and infusion of new sites will completely overwhelm the system and exacerbate the problems that already plague Superfund, so I think it is very important to look at options for shifting to the States a fair amount of the Superfund responsibility going forward.

One way to think about drawing lines, echoing some of Mr. Clay's comments, would be to focus the Federal program on what it has historically done best, which is the emergency removal actions as opposed to long-term complex construction projects.

Mr. OXLEY. Mr. Clay?

Mr. CLAY. I would agree. I think you can in fact go that way. You have got to decide at the first stage if you are going to provide funding, if you are going to provide minimum Federal standards or what have you. I don't think you can just completely walk away. You have got to do something but clearly that's the direction if the Congress so chooses that you could go and it would be useful to go.

The first Superfund site that I ever went to I walked out on it and I wondered why am I here? I mean what do I bring? It was up on Long Island. The answer turned out in the end to be $35 million, but beyond there was nothing that I could add. They were trying to build condominiums and it was clearly a State and local decision, not a Federal decision.

Mr. OXLEY. Thank you. Let me inquire of my friend from Massachusetts. We have got a vote, two votes, and I don't want to hold this panel. Could he be reasonably brief?

Mr. MARKEY. How many minutes?

Mr. OXLEY. About 5 minutes before the vote. The problem is there are going to be two votes back to back and the Chair would like to complete this.

Mr. MARKEY. Is this the last panel?

Mr. OXLEY. Yes.

Mr. MARKEY. Would the panelists mind if we just came back here in about 15 minutes and asked some more questions?

Mr. CLAY. At your convenience for me.

Ms. WILLIAMS. Fine.

Mr. OXLEY. Okay, good.

Mr. MARKEY. If you don't mind. It's just that it would be hard for me to even ask the question. I would miss the roll call——

Mr. OXLEY. We wouldn't want that to happen. All right. We will recess for hopefully no longer than 15 minutes.

Mr. MARKEY. I want you to enjoy all the pleasures of being chairman, okay?

[Brief recess.]

Mr. OXLEY. The committee will come to order. We thank the witnesses for their patience.

We have got a little bit of time now. We are waiting on the gentleman from Massachusetts, who is enroute I'm told.

Let me ask the panel this. When Carol Browner was here earlier she stated that retroactive liability is part of the solution to Brownfields and not the problem.

Specifically on that point do you agree and does Superfund bar liability where voluntary clean-ups are taken?

Mr. Clay, let's start with you.

Mr. CLAY. I'm not sure I completely understand the question, but my opinion is that the Brownfield initiatives are certainly a good start but I am not sure they can ever waive by rule what the Congress has there so to the degree that there are still ultimate liability I'll defer to my legal colleagues but it's like the lender liability rule. The court has ruled that the Agency tried very hard under the current statute and I think they are trying very hard here.

Can they solve the ultimate problem? I don't know.

Mr. STEINBERG. Mr. Chairman, the clean-up project generally stays away from liability issues per se. In our view the lack of incentives for voluntary clean-up is part of the problem but the remedy selection problem is the biggest obstacle to voluntary clean-ups and that in turn exacerbates the Brownfields problem.

If people knew that the remedy selection process was going to unfold in a reasonable way, the liability fears I think would be mitigated substantially.

Mr. OXLEY. And Ms. Williams?

Ms. WILLIAMS. That's all right, Mr. Chairman.

Actually we do have to agree with Mr. Steinberg in that assessment.

A lot of the sites that we talk about in the Brownfields initiative are really low priority sites. Many of these sites are not NPL caliber sites and so from that perspective we are looking at a greater State involvement, looking at programs that would enhance the State's ability and gives some relief to again prospective purchasers and lenders to go in there and not red-line sites, to clean up the sites, so I believe that looking at the remedy perspective from that angle really addresses the Brownfields sites.

Mr. OXLEY. I assume that, Mr. Clay, you were referring to the recent pronouncement by the EPA on the Brownfields initiative?

Mr. CLAY. Yes.

Mr. OXLEY. And a lot of us in Ohio and other States were pleased to see that move but I also think that there is pretty strong evidence to indicate that we have a lot farther to go, particularly perhaps in the liability side and the voluntary clean-up side before we

can really effectuate major changes in the way the system has worked.

It seems that we have so many inventoried sites now that are lying idle, have been that way for a number of years that it clearly is a goal of this committee to deal with that very real problem and the Mayor of St. Louis, I'm sure you were here, did exactly that and I think made an excellent point on behalf of all of the mayors that he represented.

The gentleman from Massachusetts.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

Mr. Clay, if I may, critics of the Superfund program often allege that clean-up decisions are based on overly conservative exposure assumptions. Your own testimony on page 7 cautions against using theoretical worst case assumptions and Mr. Steinberg asserts in his testimony that, and I quote, "The current Superfund remedial program often bases risk assessments on exposure pathways that do not exist today and probably will not exist in the future."

However, it appears from reading a memorandum that you authored in July of 1991 entitled "Recommendations for Accelerating Clean-Up and Managing Risks at Superfund Sites" that while worst case exposure assumptions may have been a problem in the program, you moved aggressively to deal with it in 1990 and 1991 timeframe.

Let me read a couple of the pertinent sentences from your memorandum and ask for your comment: "The 1990 revisions of the National Contingency Plan directed that Superfund clean-up decisions be based on reasonable maximum exposure estimates. The National Contingency Plan language was intended to achieve greater consistency and to move away from the worst case evaluation toward more reasonable exposure scenarios, that is, likely scenarios for those individuals near a site that would receive the greatest exposure. The National Contingency Plan and the revised Superfund Human Health Evaluation Manual allow for site-specific factors to be considered in the risk assessment and where site-specific data are lacking a range of presumed exposure factors are provided to assist the regions in making reasonable assumptions."

In March of 1991 the OSWER issued further guidance on what specific default exposure factors to use when site-specific data are lacking. This directive does not adopt worst case default factors but factors which correspond to the NCP's reasonable maximum exposure concept. For example, one of the standard default exposure values is 30 years for the time an individual is expected to live at one residence. The standard default value is based on the 1983 Bureau of Census data.

The 30-year standard default value results in a smaller risk than the risk calculated using the worst case assumption of 70-years, commonly used in several other Agency programs. Would you agree that for at least the last 4 years it has been EPA's clear policy not to use worst case exposure assumptions in the Superfund program?

Mr. CLAY. Yes.

Mr. MARKEY. Okay, thank you. How do you reconcile, then, Mr. Steinberg's statement with the policy you adopted as Superfund's program manager?

Mr. CLAY. Well, but I think that that is not the whole range. I think for example that you're pointing out the Superfund program does use 30 years rather than 70 years but on the other hand the Superfund program still uses the 95 percent upper confidence value. The Superfund program still tends to report things as a single number when a range perhaps is more appropriate so there is more than that, but clearly I think the Superfund risk numbers are in fact more realistic than much of the rest of the Agency.

Mr. MARKEY. So they are more realistic today then?

Mr. CLAY. I think we made improvements and I think they are more realistic than the rest of the Agency, yes.

Mr. MARKEY. Okay. President Bush instituted a management by objective system. One commitment was to emphasize enforcement to induce private party clean-up and have responsible parties undertake remedial projects at 50 percent of the sites by September 30h, 1990.

You sent a letter, in a letter sent to you by this committee dated April 18, 1991, you were bullish on the success of the enforcement program. Let me read what you said at that time: "EPA is committed to a vigorous but fair enforcement program. EPA's management review of the Superfund program, the 90-day study emphasizes an enforcement first approach in which EPA places responsibility for clean-up of Superfund sites on those who contributed to the program. The enforcement first program approach has yielded significant results in fiscal year 1990. EPA entered 199 settlement agreements" et cetera, et cetera.

You were in charge under the Bush administration. Did you seek any legislative changes to this statute during that time?

Mr. CLAY. No, we did not. We did two things.

One, particularly Bill Reilly and I were very interested in implementing the program as written by the Congress and we did that vigorously.

Mr. MARKEY. Okay.

Mr. CLAY. And one of the things that Bill Reilly started out with with the 90-day study, that included enforcement first and we did that vigorously.

But second we always had in mind that we should be accumulating data for the coming reauthorization.

Two years before I left even I had a conference trying to anticipate the kinds of questions that would be needed so enforcement first was the idea was we didn't have to embrace it but we would try it fully and the Congress would have the benefit of seeing how that worked or not and then could decide on reauthorization what they wanted.

Mr. MARKEY. Thank you. Well, you never did make any requests for changes in the Omnibus Reconciliation Act of 1990 and the 3-year extension.

Have your views changed since then?

Mr. CLAY. Change in respect to Superfund——

Mr. MARKEY. Superfund.

Mr. CLAY. No. As I have testified today, I think the statute it's time to revisit. We have had 14 to 15 years——

Mr. MARKEY. You used to favor a clean extension but your views have changed since then?

Mr. CLAY. It has changed. I think we now have time. I think we needed to run in a consistent direction for a few years——

Mr. MARKEY. Does your private consulting business have industrial clients who are involved at Superfund sites since you have gone from the public sector to the private sector?

Mr. CLAY. We have one Superfund client now, site-specific only, no policy work.

Mr. MARKEY. Who is that?

Mr. CLAY. Oxy.

Mr. MARKEY. Oxy. You have Oxy and some of these other firms—Texaco?

Mr. CLAY. Not for Superfund, no. We have a general policy group that people belong but Superfund work we have one Superfund project in-house now——

Mr. MARKEY. General Electric, do they have any Superfund sites?

Mr. CLAY. They have sites but nothing that we do for them.

Mr. MARKEY. You don't do anything for them?

Mr. CLAY. No. As RCRA clients we have a large membership organization where many people belong.

Doing Superfund work we have one client now and we have not been particularly active in the Superfund debate.

Mr. MARKEY. Okay, good. Okay, thank you very much.

Mr. CLAY. Okay.

Mr. STEINBERG. Mr. Chairman? Might I be permitted a brief comment in response to the question before that?

Mr. OXLEY. Of course.

Mr. STEINBERG. The issue is to EPA's improvement in risk assessment methodology, repudiation of worst cases as the goal.

I agree that worst case is no longer the stated objective. I think it is important to understand that on the other hand neither is accuracy or objectivity the objective.

We are still looking at a risk assessment methodology that deliberately overstates risk, that does not have the objective of accurately assessing risk.

There are conservative biases that are still in the system. I wouldn't want the discussion about worst case to have us think that everything is now under control in that regard. Thank you.

Mr. MARKEY. If I may, Mr. Chairman, just to pursue with Mr. Steinberg for 1 minute, the Chemical Manufacturers of America endorsed last year's bill with glowing tributes.

Mr. STEINBERG. That's correct.

Mr. MARKEY. Did you disagree with that last year?

Mr. STEINBERG. That was their position, absolutely.

Mr. MARKEY. Did you disagree with their position last year?

Mr. STEINBERG. Individually?

Mr. MARKEY. Yes.

Mr. STEINBERG. No, sir.

Mr. MARKEY. So you think last year's bill was a good bill?

Mr. STEINBERG. Overall? Yes, it was.

Mr. MARKEY. Okay, thank you. That's important. Thank you.

Mr. OXLEY. The fact is of course the bill never got to the floor. This bill is going to get to the floor. It will pass and we will make

significant changes building on the progress we made last year and Carol Browner had it right. We're going to learn from our mistakes.

We have had 15 years to learn from our mistakes and then some of the mistakes have been whoppers and very expensive ones at that.

It seems to me in a program that costs an average of $30 million to clean up one site, we have spent over $60 billion in public and private moneys and had precious little to show for it, there is a great deal that we can improve on and improve the program and get to what we want to do and that's to clean up these sites and to develop these Brownfield areas in all kinds of different cities and to do it right.

We plan to do it right this time and——

Mr. MARKEY. Would the gentleman yield?

Mr. OXLEY. I'd be glad to yield. Sure.

Mr. MARKEY. Ditto. Everything you just said.

Mr. OXLEY. Very good. We'll count on you all the way.

Thank you again, our panelists, for appearing and for your immense patience. We started at 9 a.m. and I think you have all been here through the whole process

We may not be finished with you but at least for today we are, and the committee stands adjourned.

[Whereupon, at 1:38 p.m., the subcommittee was adjourned.]

[Responses to subcommittee questions follow:]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Washington, DC., May 18, 1995.

HON. THOMAS J. BLILEY, JR.
Chairman, Committee on Commerce,
Washington, DC

DEAR MR. CHAIRMAN: Thank you for your March 30, 1995, letter to Administrator Carol Browner requesting information on EPA's soil lead policy. I am enclosing materials to address the questions that you have asked as a follow up to the March 16 hearing of the Subcommittee on Commerce, Trade and Hazardous Materials.

We hope these answers assist in clarifying Superfund soil lead activities.

Sincerely,

ELLIOTT P. LAWS, *Assistant Administrator.*

RESPONSES TO SUBCOMMITTEE QUESTIONS BY ENVIRONMENTAL PROTECTION AGENCY

Question 1: Superfund's Approach to Addressing Soil Lead Contamination

Answer: One of the primary reasons for issuing the Revised Interim Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities (OSWER Directive 9355.4-12) is that EPA believes that the past soil lead directive (which recommends cleanup at levels ranging between 500 and 1,000 ppm lead in soil) no longer reflects our best understanding of the risks associated with lead. The recent soil lead directive, published on July 14, 1994, recommends the use of the Integrated Exposure Uptake Biokinetic (IEUBK) Model to assess the risks to children of environmental lead. The model is designed to consider site-specific information in estimating the contribution of different environmental sources of lead to the overall blood lead level(s) in children. The model uses site-specific data such as environmental lead levels in soil, water, and air as well as information on the children exposed (e.g., age). Superfund applies the model on a site-specific basis, although some parameters, for example, those applying to the typical diet of a child, are based on data from a larger segment of the population. Therefore, validation efforts in Superfund have focused on site-specific application of the model.

Question 2: Agency Soil Lead Guidance Issued in July of 1994

Answer: EPA issued two guidance in July of 1994 that addressed soil lead contamination. The OSWER guidance, cited above, recommends a risk-based screening level of 400 ppm for lead in soil for residential land use, describes how to develop site-specific preliminary remediation goals or media cleanup standards at Superfund

and RCRA sites, and describes a plan for soil lead cleanup at Superfund and RCRA sites that have multiple sources of lead. The OSWER guidance recommends using the IEUBK Model for evaluating potential risks to humans from environmental exposures to lead at hazardous waste sites in residential settings. The other guidance (Agency Guidance on Residential Lead-Based Paint, Lead-Contaminated Dust, and Lead-Contaminated Soil, OPPTS, July 14, 1994), which was issued by the Office of Prevention, Pesticides, and Toxic Substances (OPPTS), is designed to encourage activities to reduce lead-based paint hazards, including dust and soil, at some of the nation's most contaminated residential properties (Title IV, Section 403 of the Toxic Substances Control Act: Title X of the Housing and Community Development Act). Both guidance are intended to protect children in residential settings, and both identify 400 ppm as the soil lead level below which no further action or study would generally be needed. The OPPTS guidance describes a set of nationwide ranges of soil lead levels (400-2,000 ppm, 2,000-5,000 ppm, and >5000 ppm) that are tied to recommendations for interim controls. The OPPTS guidance documents emphasizes that these levels are not cleanup levels, and they are not risk based and cannot be used for site-specific cleanup levels.

Question 3: Use of Blood Lead Data

Answer: The OSWER directive released last summer (cited above) recommends the use of all available data, including blood lead data, in assessing lead related risks associated with a site. While data from well-conducted blood lead studies can be useful, they must be evaluated carefully. Blood lead measurements may be misleading as to the lead-related risks posed by a site, when measurements are taken from a small sample size or at a time that does not represent exposure that will be experienced by a child. For example, the contribution of outdoor soil lead to blood lead will be lower if a child does not come into contact with that outdoor soil lead such as in a snow covered yard. EPA's Science Advisory Board has asserted that site residents may temporarily modify their behavior (e.g., wash their children's hands more frequently) whenever public attention is drawn to a site. In such cases, this behavior could mask the magnitude of potential risk at a site and lead to only temporary reductions in the blood lead levels of children. The IEUBK Model also assists in identifying other sources of environmental lead that may pose a risk to children, such as paint. This is especially important because other sources of lead, such as paint, may provide a significant contribution to lead exposure at a site. The Interim Soil Lead Directive specifies that when other significant sources of environmental lead are identified, appropriate steps should be taken. In the case of paint that is posing a threat to children, EPA is seeking to work with other appropriate groups, such as the Department of Housing and Urban Development, to address the other sources of lead.

Question 4: Three Cities Lead Study

Several statements on the "Three Cities Lead Study" warrant clarification. The Urban Soil Lead Abatement Demonstration Project ("Three Cities Lead Study") has been reviewed in a number of public forums and published in draft reports that are available to the public and in two scientific papers. However, additional requests for analyses by peer reviewers, affiliated with academia and state and federal agencies, have resulted in additional reviews that have delayed the publication of the final combined report. The schedule for its completion is discussed below.

Although the study has not completed final peer review, the results to date demonstrate a relationship between elevated soil lead levels and elevated blood lead levels and are consistent with EPA's current guidance that soil levels below the current screening level of 400 ppm (the level below which further study or action is generally not warranted) are unlikely to present a health risk to children. In Boston, where preabatement lead levels in soil were greatest and averaged approximately 2,500 ppm, the impact of soil lead reductions on house dust could be measured even after 1 year when lead-based paint was also stabilized; and even greater reductions in blood lead concentrations were found 2 years after the original soil abatement. The combined results from both phases of the study suggest that a soil lead reduction of 2,060 ppm is associated with a 2.2 5 to 2.70 μg/dl decline in mean blood lead level, or a decrease of 1.1-1.3 μg/dl per 1,000 ppm reduction in soil lead concentration. Furthermore, the low levels of soil recontamination 1 to 2 years after abatement indicate that intervention is persistent. In Baltimore and Cincinnati, where most preabatement soil lead levels were close to the Superfund screening level and linear regression methods of statistical analysis were used, the individual studies did not identify a relationship between reductions in soil lead and reductions in blood lead in urban neighborhoods where soil lead levels originally averaged around 500 ppm. Reanalysis by EPA using different statistical methods, however, found that reductions of lead in house dust in each city produced corresponding reductions in blood lead, a relationship that is consistent with findings in Boston.

EPA has preliminarily interpreted the results of the study to indicate that interruption of the pathways by which children are exposed to dust produces a reduction in blood levels. Abatement of lead-contaminated soil in areas with higher soil concentration is associated with declines in blood lead levels. In those areas with soil lead levels close to the Superfund screening level, the relationship between reductions in soil lead levels and reductions in blood lead levels was not identified, although a relationship between reduction in dust lead levels and reduction in blood lead levels were preliminarily indicated. Moreover, the study demonstrates a relationship between elevated soil lead levels and elevated blood lead levels and suggests that soil lead levels below the current screening level are unlikely to present a health risk to children. Until EPA has completed peer review, these interpretations should be considered preliminary.

Question 5: NHANES III Trends in Blood Lead Levels

As noted, the National Health and Nutrition Examination Survey (NHANES III) shows a dramatic decrease in mean blood lead levels in the U.S. population between 1976 and 1991. Although the decline in mean blood lead levels is probably attributable to the removal of lead from gasoline and from soldered cans, exposure to lead at levels that may adversely affect the health of children remains a problem among selected subgroups of the population. The OSWER guidance is designed to address these problems.

Question 6: Apparent Designation of 400 ppm as a Preliminary Remediation Goal

Finally, EPA's December, 1994 draft revised soil screening guidance refers to the 400 ppm screening level as a preliminary remediation goal. This statement is an error that was discovered after the draft document had gone to press, and it will be corrected in the final document.

Request 1: Lead-containing soil abatements at National Priorities List (NPL) and non-NPL sites should not proceed unless a site specific risk assessment is conducted and considered when determining the cleanup level and the remedy.

It is our normal practice to employ a site specific risk assessment for NPL sites that may require soil abatement. The risk assessment is part of the remedial investigation, which is issued for public review and comment. Information supporting a proposed Record of Decision (ROD), which outlines the cleanup to be undertaken, includes cost and feasibility information. Most removal actions, which include non-NPL sites, target removal levels between 500 and 2,000 ppm. While removal actions do not undergo a detailed risk assessment, EPA typically seeks the advice of ATSDR in order to ensure that immediate public health impacts will be addressed by the removal action.

Request 2: A cost-benefit analysis should be conducted at these sites and remedies should be selected that justify the remediation costs.

EPA is exploring approaches to the incorporation of cost benefit analyses into its decision-making process for Superfund sites. In order to fully capture benefits of health risks at sites, additional work is needed to reasonably quantify the benefits of reducing health and environmental risks. For example, lead is known to have a human health impact on children that play around Superfund sites. But, quantifying the benefits (e.g., how can we reasonably quantify the loss of intelligence associated with lead exposure for a child?) is extremely difficult.

Cost currently is one of the nine key criteria considered in the Superfund remedy selection process defined in the National Contingency Plan (NCP). In addition, the Superfund law requires that remedies selected be cost-effective. Cost-effectiveness is determined by balancing several factors critical to a successful cleanup: 1) the long-term effectiveness and permanence afforded by the remedy; 2) the extent to which the remedy reduces the toxicity, mobility, or volume of the substances through treatment; 3) the short-term effectiveness of the remedy; and 4) the cost of the remedy. "A remedy shall be cost-effective if its costs are proportional to its overall effectiveness" (NCP sections 300.430(f)(1)(ii)(D)). We use the above factors to help us identify the most effective remedy at the least cost.

Last fall, during the Superfund Reauthorization debate, the Administration endorsed an approach that would have replaced the current mandate to "utilize permanent solutions and treatment technologies to the maximum extent practicable" with a call for remedies which "afford long-term reliability at reasonable cost." "Reasonableness of cost" was proposed as one of five factors for remedy selection, along with effectiveness, long-term reliability, short-term risks from implementation, and acceptability to the community.

EPA is interested in improving the rigor with which costs are considered in the Superfund remedy selection process, especially as the tools for measuring and quantifying benefits are further developed. Tools to quantify both costs and benefits for

cancer and noncancer health effects as well as ecological impacts of abandoned waste disposal sites need further development. We expect to incorporate cost-benefit findings into our remedy decisionmaking in the future. Given the diversity of views on this subject at the current time and the lack of available tools, however, we believe it would be premature to require cost-benefit analyses on a site-specific basis.

Request 3: The Agency should provide the Committee with a date by which the final integrated "Three Cities Lead Study" report will be completed.

The eventual publication of the final "Three Cities Lead Study" is being managed by EPA's Office of Research and Development (ORD). We have worked with ORD in condensing the schedule as much as possible while including the necessary peer review steps. External peer is ongoing. In response to peer review comments, the ORD staff is currently conducting further analyses of the Three Cities study, which it expects to complete in August, 1995. The report will be made final after completion of the peer review process. If the peer review results have no additional need for analyses, the report will be released in final form in January, 1996.

Request 4: The Agency should release the data on which the final integrated report will be based and provide an appropriate period of time for public review and comment on the data and the report prior to finalization.

While epidemiology studies usually report scientific analyses of the data without releasing the data base from which the analyses are drawn, EPA intends to release to the broader scientific community the data base associated with the "Three Cities Lead Study" either concurrent with the publication of the combined report or shortly thereafter. Confidentiality considerations will require that some of the data be masked. The data and analyses based on the data are currently in the peer review process. Release of the data base following completion of the combined report will improve the ability of reviewers to carry out independent analyses by which to judge the scientific soundness of findings in the final report.

Request 5: The Agency should provide the Committee with a list of all NPL and non-NPL sites at which abatement of lead-containing soil below 5,000 ppm has been required or proposed.

In order to provide a timely response to this question, EPA has drawn upon readily available sources of data, which have not undergone a rigorous review. EPA Headquarters does not maintain a list of either NPL or non-NPL sites for which lead abatement is proposed. Table 1 lists sites at which EPA believes abatement of lead-containing soil below 5,000 ppm has been required. Table 1 lists sites reporting lead as a soil contaminant in Records of Decisions (ROD's) through fiscal year 1993. Because efforts to reduce lead exposure typically have targeted levels below 5,000 ppm, the attached listing of sites encompasses all sites that have targeted lead as a contaminant to be addressed. These cleanup levels were determined prior to the issuance of the OSWER soil lead directive in 1994. It should also be noted that the listing of lead as a contaminant identified in the ROD does not mean that lead was the chemical that drove the cleanup levels. Other chemicals present at the site may have triggered the cleanup actions. Table 2 lists non-NPL sites where lead removal actions have taken place. Sites with multiple chemicals that may have formed the basis for cleanup have not been included in Table 2.

Table 1. NPL Sites with Lead in Soil as Identified by a ROD

Region	Site Name
1	Brunswick Naval Air Station (Operable Unit 1), ME
1	Brunswick Naval Air Station (Operable Unit 4), ME
1	Industri-plex, MA
1	New Bedford, MA
1	Newport Naval Education/Training Center, RI
1	Nyanza Chemical Waste Dump, MA
1	Nyanza Chemical Waste Dump, MA
1	O'Connor, ME
1	Otis Air National Gaurd/Camp Edward, MA
1	Pease Air Force Base (Operable Unit 1), NH
1	PSC Resources, MA
1	Saco Tannery Waste Pits, ME
1	Salem Acres, MA
1	Silresim Chemical, MA
1	Sullivan's Ledge, MA
1	Union Chemical, ME
1	Wells G&H, MA
1	Yaworski Waste Lagoon, CT
2	American Cyanamid, NJ
2	American Thermostat, NY
2	Applied Environmental Services, NY
2	Burnt Fly Bog, NJ
2	Burnt Fly Bog, NJ
2	C & J Disposal, NY
2	Circuitron, NY
2	Claremont Polychemical, NY
2	Claremont Polychemical, NY
2	Cosden Chemical Coatings, NJ
2	Curcio Scrap Metal, NJ
2	DeRewal Chemical, NJ
2	Endicott Village Well Field, NY
2	FAA Technical Center, NJ
2	Facet Enterprises, NY
2	Fibers Public Supply Wells, PR
2	FMC-Dublin Road, NY
2	Genzale Plating, NY
2	Glen Ridge Radium, NJ
2	Global Landfill, NJ
2	Hertel Landfill, NY
2	Imperial Oil/Champion Chemicals, NJ
2	Industrial Latex, NJ
2	Johnstown City Landfill, NY

2	King of Prussia, NJ
2	Mattiace Petrochemicals, NY
2	Mattiace Petrochemicals, NY
2	Metaltec/Aerosystems, NJ
2	Montclair/West Orange Radium, NJ
2	Myers Property, NJ
2	Nascolite, NJ
2	Naval Air Engineering Center (Operable Unit 11), NJ
2	Naval Air Engineering Center (Operable Unit 13), NJ
2	Naval Air Engineering Center (OU2), NJ
2	Naval Air Engineering Center (OU4), NJ
2	Niagara County Refuse, NY
2	NL Industries, NJ
2	North Sea Municipal Landfill, NY
2	Pasley Solvents & Chemical, NY
2	Plattsburgh Air Force Base (Operable Unit 3), NY
2	Preferred Plating, NY
2	Reynolds Metals, NY
2	Ringwood Mines/Landfill, NJ
2	Roebling Steel, NJ
2	Roebling Steel, NJ
2	Rowe Industries Groundwater Contamination, NY
2	Scientific Chemical Processing, NJ
2	Sealand Restoration, NY
2	Sinclair Refinery, NY
2	SMS Instruments, NY
2	Solvent Savers, NY
2	Swope Oil & Chemical, NJ
2	Syncon Resins, NJ
2	Vestal Water Supply 1-1, NY
2	Waldick Aerospace Devices, NJ
2	Warwick Landfill, NY
2	Woodland Township Route 532, NJ
2	Woodland Township Route 72, NJ
3	Abex Corp, VA
3	Arrowhead Associates/Scovill, VA
3	Brodhead Creek, PA
3	Brown's Battery Breaking, PA
3	Brown's Battery Breaking, PA
3	C & D Recycling, PA
3	C & R Battery, VA
3	Douglassville Disposal, PA
3	Dover Air Force Base, DE
3	Eastern Diversified Metals, PA

3	First Piedmont Quarry 719, VA
3	Hebelka Auto Salvage Yard, PA
3	Hranica Landfill, PA
3	Hunterstown Road, PA
3	Industrial Drive, PA
3	Keystone Sanitation Landfill, PA
3	Lindane Dump, PA
3	McAdoo Associates, PA
3	Modern Sanitation Landfill, PA
3	MW Manufacturing, PA
3	MW Manufacturing, PA
3	Novak Sanitary Landfill, PA
3	Old City of York Landfill, PA
3	Ordnance Works Disposal Areas, WV
3	Osborne Landfill, PA
3	Taylor Borough Dump, PA
3	Tonolli, PA
3	USA Aberdeen, Michaelsville, MD
3	Walsh Landfill, PA
4	Aberdeen Pesticide Dumps (Amendment), NC
4	Agrico Chemical, FL
4	Alabama Army Ammunition Plant, AL
4	Anodyne, FL
4	Benfield Industries, NC
4	Bypass 601 Groundwater Contamination (Amendment), NC
4	Bypass 601 Groundwater Contamination, NC
4	Bypass 601 Groundwater Contamination, NC
4	Carolina Transformer, NC
4	Carrier Air Conditioning, TN
4	Cedartown Industries, GA
4	Celanese/Shelby Fibers Operations, NC
4	Ciba-Geigy (McIntosh Plant), AL
4	Davie Landfill, FL
4	Distler Brickyard, KY
4	Distler Farm, KY
4	Elmore Waste Disposal, SC
4	Firestone Tire & Rubber (Albany Plant), GA
4	Florida Steel, FL
4	Flowood, MS
4	Geiger (C & M Oil) (Amendment), SC
4	Geiger (C & M Oil), SC
4	Gold Coast Oil, FL
4	Golden Strip Septic Tank, SC
4	Hercules 009 Landfill, GA

4	Jadco-Hughes, NC
4	Kalama Specialty, SC
4	Kassouf-Kimerling Battery Disposal, FL
4	Kassouf-Kimerling Battery Disposal, FL
4	Lewisburg Dump, TN
4	Marine Corp Logistics Base, GA
4	Mathis Brothers Landfill (South Marble Top Road), GA
4	Maxey Flats Nuclear Disposal, KY
4	Newsom Brothers/Old Reichhold Chemicals, MS
4	Peak Oil/Bay Drum (Operable Unit 1), FL
4	Peak Oil/Bay Drum (Operable Unit 3), FL
4	Peppers Steel & Alloys, FL
4	Pickettville Road Landfill, FL
4	Potter's Septic Tank Service Pits, NC
4	Reeves Southeastern Galvanizing (Operable Unit 1), FL
4	Sapp Battery Salvage, FL
4	Savannah River (USDOE)(Operable Unit 1), SC
4	Savannah River (USDOE)(Operable Unit 2), SC
4	Schuylkill Metal, FL
4	Sixty-second Street Dump, FL
4	Smith's Farm Brooks (Amendment), KY
4	Smith's Farm Brooks, KY
4	Smith's Farm Brooks, KY
4	Standard Auto Bumper, FL
4	Tower Chemical, FL
4	USAF Robins Air Force Base, GA
4	Whitehouse Waste Oil Pits (Amendment), FL
4	Wrigley Charcoal, TN
4	Zellwood Groundwater Contamination (Amendment), FL
5	Acme Solvent Reclaiming, IL
5	American Chemical Services, IN
5	Anderson Development, MI
5	Arcanum Iron & Metal, OH
5	Arrowhead Refinery, MN
5	Auto Ion Chemicals, MI
5	Belvidere Municipal Landfill #1, IL
5	Berlin & Farro, MI
5	Big D Campground, OH
5	Bower's Landfill, OH
5	Buckeye Reclamation, OH
5	Burrows Sanitation, MI
5	Butterworth #2 Landfill, MI
5	Byron Salvage Yard, IL
5	Cannelton Industries, MI

5	Chem-Central, MI
5	City Disposal Sanitary Landfill, WI
5	Dakhue Sanitary Landfill, MN
5	Electrovoice, MI
5	Fadrowski Drum Disposal, WI
5	Folkertsma Refuse, MI
5	G & H Landfill, MI
5	Hagen Farm, WI
5	Himco Dump, IN
5	H.Brown Company, MI
5	Kohler Landfill, WI
5	Lake Sandy Jo/M & M Landfill, IN
5	Laskin/Poplar Oil, OH
5	Lemberger Landfill, WI
5	Liquid Disposal, MI
5	Master Disposal Service Landfill, WI
5	Miami County Incinerator, OH
5	Motor Wheel, MI
5	New Brighton/Arden Hills (TCAAP), MN
5	NL Industries Taracorp Lead Smelt, IL
5	NL Taracorp Golden Auto, MN
5	Oconomowoc Electroplating, WI
5	Old Mill, OH
5	Onalaska Municipal Landfill, WI
5	Pagel's Pit, IL
5	Peerless Plating, MI
5	Powell Road Landfill, OH
5	Pristine (Amendment), OH
5	Rasmussen's Dump, MI
5	Rose Township Dump, MI
5	Rose Township (Amendment), MI
5	Sangamo Dump/Crab Orchard NWR (USDOI), IL
5	Sangamo Dump/Crab Orchard NWR (USDOI), IL
5	Schmalz Dump, WI
5	Seymour Recycling, IN
5	Skinner Landfill, OH
5	South Andover (Operable Unit 2), MN
5	Spickler Landfill, WI
5	Spiegelberg Landfill, MI
5	Springfield Township Dump, MI
5	Summit National Liquid Disposal Service, OH
5	Thermo Chem, MI
5	Torch Lake (Operable Units 1 and 3), MI
5	United Scrap Lead, OH

5	Velsicol Chemical (Illinois), IL
5	Wash King Laundry, MI
5	Wayne Waste Oil, IN
5	Woodstock Municipal Landfill, IL
5	Zanesville Well Field, OH
6	Cal West Metals, NM
6	Cimarron Mining, NM
6	Cleveland Mill, NM
6	Double Eagle Refinery, OK
6	Fourth Street Abandoned Refinery, OK
6	Gulf Coast Vacuum Services (Operable Unit 1), LA
6	Gulf Coast Vacuum Services (Operable Unit 2), LA
6	MOTCO, TX
6	MOTCO, TX
6	Oklahoma Refining, OK
6	Petro-Chemical (Turtle Bayou), TX
6	Prewitt Abandoned Refinery, NM
7	Cherokee County, Kansas, KS
7	Doepke Disposal Holliday, KS
7	EI DuPont De Nemours (County Rd X23), IA
7	Fairfield Coal Gasification Plant, IA
7	Hastings Groundwater Contamination (East Industrial), NE
7	John Deere (Ottumwa Works Landfill), IA
7	McGraw Edison, IA
7	Mid-America Tanning, IA
7	Midwest Manufacturing North Farm (OU 2)(Amendment), IA
7	Midwest Manufacturing North Farm (OU 3)(Amendment), IA
7	Midwest Manufacturing/North Farm, IA
7	Northwestern States Portland Cement, IA
7	Pester Refinery, KS
7	Red Oak City Landfill, IA
7	Shaw Avenue Dump, IA
7	Weldon Spring Quarry/Plant/Pits (USDOE), MO
7	White Farm Equipment Dump, IA
8	Broderick Wood Products (Amendment), CO
8	Broderick Wood Products, CO
8	Denver Radium (Operable Unit 8), CO
8	Denver Radium (Operable Unit 9), CO
8	Eagle Mine, CO
8	East Helena, MT
8	Martin Marietta, Denver Aerospace, CO
8	Minot Landfill, ND
8	Montana Pole and Treating, MT
8	Monticello Mill Tailings (DOE), UT

8	Ogden Defense Depot (Operable Unit 4), UT
8	Portland Cement (Kiln Dust #2 & #3), UT
8	Rocky Flats Plant (USDOE)(Operable Unit 2), CO
8	Rocky Mountain Arsenal (Operable Unit 20), CO
8	Rocky Mountain Arsenal (Operable Unit 28), CO
8	Sand Creek Industrial, CO
8	Sharon Steel (Midvale Tailings), UT
8	Silver Bow Creek/Butte Area, MT
8	Silver Bow Creek/Butte Area, MT
8	Smuggler Mountain, CO
8	Utah Power & Light/American Barrel, UT
9	Advanced Micro Devices 901 (Signetics)(TRW Micro.), CA
9	Beckman Instruments (Porterville), CA
9	Celtor Chemical Works, CA
9	FMC (Fresno Plant), CA
9	Hassayampa Landfill, AZ
9	Iron Mountain Mine, CA
9	Jibboom Junkyard, CA
9	Lawrence Livermore National Lab (USDOE), CA
9	Liquid Gold Oil, CA
9	Lorentz Barrel & Drum, CA
9	McClellan Air Force Base, CA
9	McColl, CA
9	Pacific Coast Pipe Lines, CA
9	Purity Oil Sales, CA
9	Rhone-Poulenc/Zoecon, CA
9	Sacramento Army Depot (Operable Unit 4), CA
9	Sacramento Army Depot, CA
9	Signetics (AMD 901)(TRW Microwave), CA
10	Bangor Ordnance Disposal (USN Sub Base), WA
10	Bonneville Power Administration Ross Complex (USDOE)(OU1), WA
10	Bonneville Power Administration Ross Complex (USDOE)(OU2), WA
10	Bunker Hill Mining and Metallurgical Complex, ID
10	Bunker Hill Mining and Metallurgical Complex, ID
10	Commencement Bay - Nearshore/Tideflats, WA
10	Commencement Bay - Nearshore/Tideflats, WA
10	Commencement Bay - Nearshore/Tideflats, WA
10	Fort Lewis Logistic Center, WA
10	Hanford 1100-Area (DOE), WA
10	Harbor Island-Lead, WA
10	Joseph Forest Products, OR
10	Pacific Hide & Fur Recycling (Amendment), ID
10	Queen City Farms, WA
10	Teledyne Wah Chang Albany (TWCA), OR
10	Umatilla Army Depot (Operable Unit 1), OR
10	Union Pacific Railroad Yard, ID
10	Western Processing, WA
10	Wyckoff/Eagle Harbor, WA

RUN DATE: 04/17/95
DATA DATE: 04/07/95

Table 2. PC CERCLIS VERSION OF MAINFRAME CERCLIS REMOVAL 14A
SUMMARY OF NON-NPL REMOVAL PROJECTS
PRIMARILY INVOLVING LEAD

EPA ID	SITE NAME	SITE LOCATION	STATE	LEAD	NPL STATUS	EVENT TYPE	EVENT CLASS	START IND	START DATE	COMP IND	COMP DATE
Region I											
NHD986489763	SKEET CLUB	HOOKSETT	NH	RP	N	RV1	TC	A	09/26/94	A	
Region II											
NYD986954030	CLINTON ST. - BENDER AVE	BUFFALO	NY	RP	N	RV1	TC	B	07/06/92	B	
NYD986954030	CLINTON ST. - BENDER AVE	BUFFALO	NY	RP	N	RV2	TC	D	09/30/93	D	
Region III											
PAD981033459	RYELAND ROAD ARSENIC SITE	HEIDELBERG TWP.	PA	F	N	IR1		A	07/22/85	A	
PAD981738743	SSCD SCHOOLYARD	PUNXSATAWNEY	PA	F	N	RV1	TC	A	10/15/86	A	03/10/87
PAD001222025	JACKSON CERAMIX INC	FALLS CREEK	PA	F	N	RV1	TC	B	03/08/88	B	02/10/89
PAD001222025	JACKSON CERAMIX INC	FALLS CREEK	PA	F	N	RV2	EM	O	04/09/90	D	10/26/90
VAD988176368	SCOTT ROBINSON LEAD BATTERY	WISE	VA	F	N	RV1	TC	A	10/09/90	A	06/04/92
VAD988174835	COEBURN BATTERY DISPOSAL SITE	COEBURN	VA	F	N	RV1	TC	A	09/21/92	A	
PA0987389624	BAKER BROTHERS SCRAP YARD	LEWISBURG	PA	F	N	RV1	TC	A	04/07/93	E	04/22/93
PAD987332541	HAMBURG PLAYGROUND SITE	HAMBURG	PA	F	N	RV1	TC	A	09/01/93	A	
VAD003112364	HYMAN VIENER & SONS	RICHMOND	VA	F	N	RV1	TC	A	01/08/94	A	
VA0000283952	HARRY BRANCH LEAD SITE	WHITEWOOD	VA	F	N	RV1	TC	A	04/19/94	A	
VAD988226890	TAZEWELL LEAD ACID BATTERY AREA I	AMONATE	VA	F	N	RV1	TC	A	09/06/94	A	01/10/95
Region IV											
SCO982119604	WOODWARD PROPERTY PAINT DRUMS	MYRTLE BEACH	SC	F	N	RV1		A	04/07/87	A	04/09/87
Region VII											
IAD021693338	MICHAEL CO (BETTENDORF)	BETTENDORF	IA	RP	N	RV3		A	08/26/86	E	11/17/86
IAD981707367	MICHAEL BATTERY (ROCKINGHAM)	DAVENPORT	IA	F	N	RV3	TC	A	11/08/90	A	04/18/91
IAD981727944	BATTERY EXCHANGE	CLEAR LAKE	IA	RP	N	RV1	TC	B	01/07/92	B	01/09/92
IAD981727886	KALONA BATTERY COMPANY	KALONA	IA	F	N	RV1	TC	A	03/25/92	E	04/20/92
IAD981727944	BATTERY EXCHANGE	CLEAR LAKE	IA	F	N	RV2	TC	D	09/02/93	O	10/20/93
IAD022364897	BLACK HAWK IRON & METAL INC	WATERLOO	IA	F	N	RV1	TC	A	06/06/94	A	06/30/94
Region VIII											
WYD982597064	TORRINGTON HIDE & METAL	TORRINGTON	WY	F	N	RV1	TC	B	07/02/91	B	04/12/94
WYD982597064	TORRINGTON HIDE & METAL	TORRINGTON	WY	RP	N	RV2	TC	D	04/12/94	D	
Region IX											
CAD983623786	KING NEPTUNE	BELL GARDENS	CA	F	N	RV1	TC	A	05/11/92	A	0/04/92
NVD986775260	BERGSTROM DUMP SITE	SANDY VALLEY AREA	NV	RP	N	RV1		A	12/15/92	A	03/19/93
Region X											
AKD009246497	ALASKA HUSKY BATTERY INC.	ANCHORAGE	AK	F	N	RV1		A	06/30/88	A	09/09/88